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ABSTRACT

The New Mexico School for the Deaf, Santa Fe, was awarded a five-year federal grant to improve language teaching practices of teachers working with children who are deaf by using current bilingual theories and pedagogical techniques, including "engaged learning" practices and educational technology. The project developed and refined the American Sign Language (ASL)/English Bilingual Staff Development Model for practicing K-12 teachers in five state residential schools for students with deafness. This report discusses activities and outcomes of year two of the five-year project. The first section of the report discusses the theoretical framework of the ASL/English Bilingual Staff Development Model. Section 2 describes the project's activities, including a technology plan for the next three years. Sections 3 and 4 discuss significant findings of three of the residential schools' teacher reflective logs, and conclude with excerpts of teachers' comments. Section 5 examines and discusses the significant issues of the complexity of assessing language of students with deafness, and describes assessment instruments such as signing attitude and reading and writing attitude surveys. It also discusses the assessment instruments for project teachers. The last section describes the family computer loan program. Appendices include further information on the ASL/English Bilingual Staff Development Model. (Contains 45 references.) (CR)

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Critical Pedagogy in Deaf Education:

Bilingual Methodology and Staff Development

Stephen M. Nover, Project Director

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USDLC Star Schools Project Report No. 2

Year Two 1998-1999

CRITICAL PEDAGOGY IN DEAF EDUCATION: BILINGUAL METHODOLOGY AND STAFF DEVELOPMENT

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September 30, 1999

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The United Star Distance Learning Consortium, Inc. (USDLC) Star Schools Project is pleased to disseminate the information and perspectives contained in this report. The findings, conclusions, and opinions expressed herein are those of the authors and do not necessarily reflect the views of USDLC or the New Mexico, Texas, and Kansas Schools for the Deaf.

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Summary Overview

The New Mexico School for the Deaf, Santa Fe, was awarded a five-year grant from the U.S. Department of Education under The United Star Distance Learning Consortium (USDLC) Star Schools Project to improve language teaching practices of teachers who work with deaf children using current bilingual theories and pedagogical techniques including "Engaged Learning" practices and educational technology.

The award was based on a proposal from NMSD faculty to develop, refine, and test an ASL/English Bilingual Staff Development Model.[1] The experience and training of the Project Director and staff[2] in sociolinguistics, language planning, bilingual education, Deaf culture, ASL, deaf education, and technology served as a foundation and resource for this plan.

We developed and refined the ASL/English Bilingual Staff Development Model[3] for practicing K-12 teachers in five state residential schools for deaf students. Teachers promoted engaged learning outcomes using two languages—ASL and English—as well as increased their use of technology in the classroom.

Teachers used engaged learning principles. Engaged learning was defined as "learning that involves more student interactions, more connections among schools, more collaboration among teachers and students, and more emphasis on technology as a teaching tool" (Jones, Valdez, Nowakowski, & Rasmussen,1996).

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[1] Nover, S. (1997). A conceptual framework for deaf education: Two approaches for English literacy. Star School grant #R203A70030-97. New Mexico School for the Deaf, Santa Fe, NM.

[2] Staff included university teacher-trainers, researchers, teachers, lead teachers (mentors), technology staff, administrators, and parents.

[3] The ASL/English Bilingual Staff Development Model is a two-year program for teachers of deaf students. Levels 1 through 4 comprise four levels of readings, writings, and discussions. See Year 1 report for elaboration (www.starschools.com).

Over the five years (1997-2002), project staff continue to revise and refine the ASL/English Bilingual Staff Development Model using readings, seminars, written reflective logs, and classroom application of skills learned including innovative uses of technology to teach two languages—ASL and English. Further, the staff set up networks of teachers and students sharing their work through email, chat rooms, WebBoards, and videoconferencing. The intent of the project was to encourage teachers of deaf students to develop new ideas about language learning and language teaching, to develop language teaching skills in ASL and English, and to network with other teachers and students about their "engaged learning activities."

Conceptual Framework

The project staff used several conceptual frameworks to develop the ASL/English Bilingual Staff Development Model: theories of bilingualism, first and second language acquisition and development, language and literacy development, and bilingual assessment. Project staff also used "critical pedagogy" and "reflective teaching" techniques to lead teachers into scrutinizing language teaching and learning beliefs (Calderhead, 1989; Dewey, 1938; Wink, 1997). Action research techniques were used to gather data on the students' language learning (Greenwood & Levin, 1998; Stringer, 1996). The purposes for the model are outlined below.

- Teachers analyzed, discussed, evaluated and changed their own common sense assumptions about language and literacy practices.
- Teachers became aware of the insiders' and outsiders' views[4] including social and political contexts, Deaf culture (audism, authoritarianism, and oppression), and multicultural issues (racism, prejudice, and oppression).

[4] Greenwood's & Levin's (1998) terms insiders' point of view and outsiders point of view in their action research model are described in Section 1.

- Deaf and hearing teachers became bilingual teachers in practice using ASL and English and in working collaboratively to improve language-teaching practices of deaf students.
- Teachers recognized the importance of children's diverse backgrounds by incorporating information about Deaf culture and multicultural groups (Black, Hispanic, Asian, Native American, etc.) into the curriculum.
- Teachers learned about theories of bilingualism, first and second language acquisition, language and literacy, and application of these theories to teaching deaf students.
- Teachers used current bilingual and language and literacy teaching strategies and methodologies.
- Teachers used instructional language assessment techniques that reflected on the strengths and challenges children have learning two languages.
- Teachers developed an increasing awareness of the use of classroom technology by completing an on-line survey, "Technology Profile," as well as using technology to teach ASL and English through email, networked laptops at school, family laptops, ASL/English videotapes and CD-ROMs, chat rooms, WWW/Internet, videoconferencing, bulletin boards, and WebBoards.

Project staff used these eight purposes to support the development, refinement and dissemination of the ASL/English Bilingual Staff Development Model.

Today's teachers of deaf children need many skills to be effective. They not only have to be knowledgeable in their teaching content area but need competencies in multiculturalism, ASL, English, and technology. Administrators can use staff development to improve the skills of their teachers. Our project provided teachers with time, resources, and training to reflect critically on their language-teaching beliefs.

Many teachers lack time to attend professional development activities related to bilingualism and deaf students.

We believe that teachers need direction from sociolinguists, language planners, deaf teachers, researchers, teacher-trainers, and experienced teachers in explaining how bilingual theories apply to the teaching of deaf students. To meet this need, for two years, we held Educational Research Team (ERT) meetings at the NMSD and TSD. These

meetings gave us time to discuss the Model, how it was working in the schools and how it could be improved. See Section 3 for a description of the teachers.

The ERT staff, particularly the mentor teachers developed the "Mentor's Manual," which can be used by other schools that adopt the ASL/English Bilingual Staff Development Model. Sections of the "Mentor Manual" will be put on our web page and a refined version will be produced into a CD-ROM in the fifth year of the project.

Staff development must include deaf and hearing professionals working together in collaborative and equal working relationships.

The deaf professionals have been underutilized as a resource in deaf education. Instead, the deaf professionals have been paternalized and relegated to lesser authority positions in educational planning. In contrast, this project's staff depended on the expertise of deaf professionals at all levels of this project from its administration, to the ERT meetings, to seminars and in the classroom. We recognize that only 15% of teachers employed in deaf education are deaf and even fewer are employed to work with young deaf children (Andrews & Franklin, 1996/97). Therefore, we have emphasized to schools interested in bilingual approaches that administrators must recruit, hire, and retain deaf administrators, teachers, and aides.

Teachers are supported within seminar groups and among the collaborating schools.

Within the seminar meetings, teachers were encouraged to discuss their views on language teaching openly. This comfort zone was continued through a communication network of email, chatroom, electronic databases, bulletin boards, and Webboard. Set up by Western Illinois University for this project, teachers can use this system to communicate with their project peers. With increased awareness of using technology to

teach two languages—ASL and English—teachers can begin to try new technologies with support from their project peers. As this project moves into years 3, 4, and 5, teachers can develop a higher comfort level with technology and serve as mentors to new teachers. With the family laptop loan program, parents too can learn about technology as they communicate with their children from home to the residential school.

Engaged learning principles "involve more student interaction, more connection among schools, more collaboration among teachers, students and parents, more involvement of teachers as facilitators, and more emphasis on technology as a tool for learning." (Jones, et al., 1996)

Project directors in the other Star Projects in this multi-state consortium have integrated "engaged learning" principles in project goals which provided collaboration among teachers, administrators, students, and parents.

In Year One...

During the first year (1997-98), we held Educational Research Team (ERT) meetings to revise the ASL/English Bilingual Staff Development Model. Twenty teachers at the New Mexico School for the Deaf and the Texas School for the Deaf took 48 hours of training. During this year (two levels of training), they read books, and journal articles about bilingual theories, theories of first and second language acquisition, bilingual strategies, Whole Language, culture, and bilingual assessment (Levels 1 and 2). After discussing, reading, and writing their thoughts on these issues in logs, teachers met to discuss how they could apply these ideas to their daily teaching. Project staff also gave presentations in the U.S. and in Canada. A 30-minute descriptive videotape about the project was also developed. Staff distributed a newsletter explaining the project activities to parents. Readers may review our first-year report on our web site: www.starschools.org.

In Year Two...

In the second year (1998-99), we held more ERT meetings, and the project director met with the mentor-teachers to continue to revise the ASL/English Bilingual Staff Development model. Teachers at NMSD and TSD completed levels 3 and 4; teachers read articles, wrote in reflective journals, applied bilingual strategies and techniques, and examined notions of culture and methods of assessment.

During the second year, eight teachers from the Kansas School for the Deaf (KSD) joined the project. KSD further revised levels 1 and 2 of the model used by the teachers at the NMSD and TSD the previous year.

We describe the products of the second year of the project below.

- Project staff continued to revise the ASL/English Bilingual Staff Development Model at three residential schools: NMSD, TSD, and KSD.
- Experts in reading, bilingual education and assessment gave workshops to project teachers (see Appendix A for a list of names).
- A Mentor's Manual for the ASL/English Bilingual Model was developed.
- A database on students was updated (included background variables, SAT scores, language samples).
- A videoconference on Deaf Multicultural Issues between Lamar University and the Texas School for the Deaf was conducted.
- A family laptop loan program with six families at the New Mexico School for the Deaf was set up.
- An assessment instrument for standards for bilingual teachers of deaf students was developed (see Section 5: Assessment Plan).

Year 3 and Year 4...

We will continue to revise the four levels of the ASL/English Bilingual Staff Development Model at NMSD, TSD, and KSD and will include two new schools: the Illinois School for the Deaf (ISD) and Eastern North Carolina School for the Deaf (ENCSD). We also will increase the use of technology in the classroom within the five schools: email, bulletin boards, WebBoards, distribution of ASL/English videotapes and

CD-ROMs, and videoconferencing. Teachers at the five sites will fill out a survey, "Technology Profile," in which they identify how they use technology in the classroom. We will also use technology to disseminate the model and project products through our web page.

Year 5 Plans...

Language learning and assessment are complex for any bilingual child. Researchers report that it takes bilingual children from four to seven years to become proficient in a second language (Collier & Thomas, 1989). Testing bilingual children in their native or home language and in English is a complex task. Today, teachers have moved away from standardized testing to more "authentic" assessment approaches which are integrated into the teaching process (Fradd & McGee, 1994; O'Malley & Pierce, 1996; Stefanakis, 1998).

A full assessment of "deaf bilingual" children must include assessments in ASL and English. Today, however, there are no commercially available tools on the market to assess deaf children's ASL competence.[5] While there are English standardized tests such as the Stanford Achievement Test (9th edition) with deaf norms, which gives measures of English reading, grammar rules, and mechanics of writing, teachers have expressed dissatisfaction with these tools. Non-standardized assessments such as authentic portfolio assessments are used by most teachers of deaf students.

Assessing the two languages of deaf children—ASL and English—is even more complex because of the variability of background characteristics of deaf children. For

[5] Today, ASL linguists are conducting work on ASL assessment of deaf children. See Prinz (1998) for a monograph, which reviews this work. We anticipate the publication of a commercial ASL test in the next few years. Taking a different tact, Shaw and her associates (1997) at the Kansas School for the deaf have

example, the variables of etiology, age of onset, family communication, additional disabilities, and ethnic background, all affect language acquisition and language learning.

Nonetheless, we must be accountable and measure students' progress. Since the first year, we have developed a database of all participating students with a description of their background characteristics (e.g. etiology, age of onset, etc.). In the final year of the project, SAT scores, language samples, and case studies will be collected and analyzed to examine the effects of the model on deaf children's language learning.

As part of the project, project staff have experimented with five assessment instruments for deaf bilingual students adapted from measures originally designed for hearing bilingual children. See also Section 5 for a discussion about assessing deaf bilingual children.

During the final year, we also plan to produce a CD-ROM version of the ASL/English Bilingual Staff Development model as well as making it available on the web.

Web Site Updates

With the support of Western Illinois University from the second year on, we will continue to update our web site with products from the project. For instance, in Year 2, we posted our first-year report on the web. From year three to five, we plan to build and maintain bulletin boards, chatrooms, and WebBoards so that teachers can interact with each other among the five school sites as well as display teacher and student products.

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been experimenting with using an informal reading inventory to measure students' comprehension when "listening" (watching) ASL.

Introduction

The ASL/English Bilingual Staff Development Project for teachers focused on developing two languages with deaf students—American Sign Language and English. This project was one component within a larger United Star Distance Learning Consortium (USDLC) project. Other USDLC projects focused on improving instruction in math, science, and reading; technology integration into the classroom; and literacy development for adults.[5]

Using an engaged learning approach, all projects in the USDLC consortium have received professional and staff development programming and resources through a convergence of satellite, Internet, and CD-ROM technologies.

We have identified, described, and analyzed the progress and the products completed by the staff of the **ASL/English Bilingual Staff Development Project** in this second year report. We also have provided information on the progress of the staff in setting up this model. This evaluation report will be added to the other Star School Project reports to provide information to the U.S. Dept of Education to understand the successes, lessons learned, and impact of the USDLC's Engaged Learning Project.

The unifying thread that weaves together all USDLC projects is the "Engaged Learners Model" modified and expanded by Jones, et al. (1996). You can read this document on-line at www.starschools.org.

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[5] The USDLC is a non-profit consortium funded by the U.S. Dept. of Education. Partners include five departments of education—Florida, Illinois, New Mexico, North Carolina, and Texas; one local education agency (ESC Region 20 in San Antonio, TX); a university teacher-education program (Western Illinois University in Macomb); five state residential schools for the deaf (NMSD, KSD, TSD, ISD, ENCSD); and a non-profit distance learning programming network—StarNet. For a history of the USDLC projects, read the document "TCET Impact 1999" on-line: www.starschools.org.

Teachers set up units and activities while considering the eight indicators of "engaged learning." We matched our ASL/English Bilingual Staff Development project goals with these engaged learner variables in Section 1 of this report.

The engaged learner variables are listed and described below.

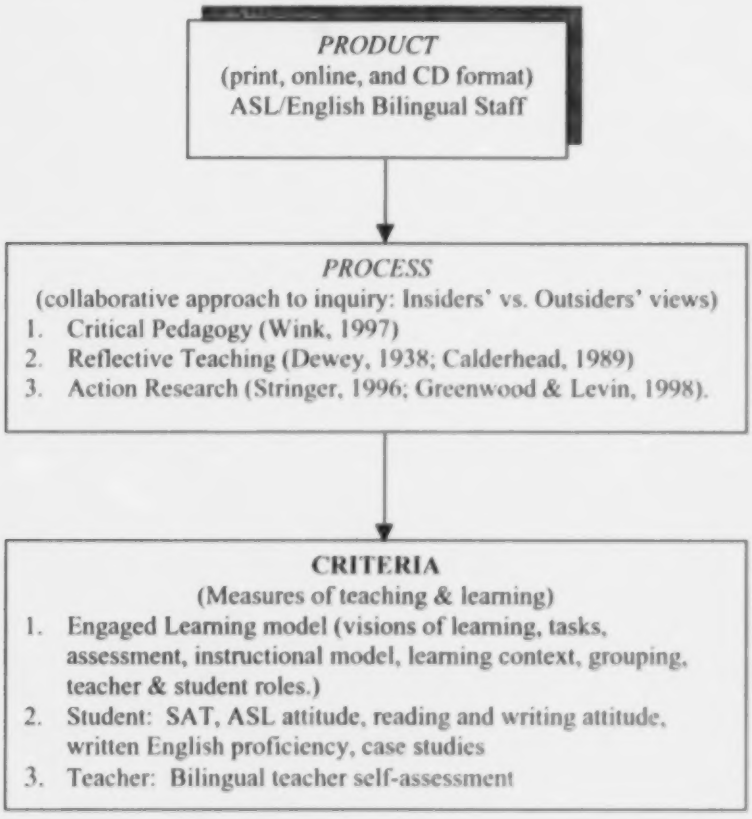
- **Vision of learning.** Students are energized by and responsible for their own learning. The teachers allow for multiple solutions to problems or the creation of diverse projects. Lessons have multidisciplinary possibilities.
- **Task.** Teachers actively engage the students in a real-world, relevant and interesting topic. Learning tasks are multidisciplinary.
- **Assessment.** Assessment protocols have a rubric or rating system. Teachers evaluate the students' progress throughout the project. Teachers involve students in developing goals and criteria for the assessment of the task. Teachers engage the learners in real-world tasks or applications. Teachers use assessments that allow students an equal opportunity to perform and to use higher-level thinking and problem-solving skills.
- **Instructional Model.** Instruction is interactive and generative. Instruction is used to determine what the child already knows in relation to a topic before starting the project. The teachers and students can also expand instruction.
- **Learning Context.** Teachers engage and challenge the students and have the students learn by doing. Teachers create an empathetic, knowledge-building learning community that is meaningful to the students and also has social relevance.
- **Grouping.** Teachers provide opportunities for flexibility to reconfigure heterogeneous groups and teams to provide equitable learning opportunities. Instruction is made accessible to the students at many levels, and students work collaboratively on projects.
- **Teachers' Role.** Teachers assume the roles of facilitator, guide, and co-learner.
- **Students' Role.** Students assume the role of explorer, cognitive apprentice, teacher, and knowledge producer.

All USDLC projects have used the eight indicators of engaged learning to measure their progress. Project staff measured their progress by using two instruments found on-line called "The Checklist for Analyzing Engaged Learning Projects" and the "Learning with Technology Profile Tool." These instruments can be found in www.tcet.unt.edu (select "research," then the ncrtec tool or the checklist).

How the ASL/English Bilingual Project Fits in with USDLC

The ASL/English Bilingual Staff Development Project was one component of the other four USDLC Projects. The major goal of this project was to develop and revise the ASL/English Bilingual Staff Development Model for teachers of deaf students in order to increase deaf children's achievement in two languages: ASL and English (see Figure 1).

Figure 1. Product, Process, and Criteria for the Project


PRODUCT
(print, online, and CD format)
ASL/English Bilingual Staff
PROCESS
(collaborative approach to inquiry: Insiders' vs. Outsiders' views)
1. Critical Pedagogy (Wink, 1997)
2. Reflective Teaching (Dewey, 1938; Calderhead, 1989)
3. Action Research (Stringer, 1996; Greenwood & Levin, 1998).
CRITERIA
(Measures of teaching & learning)
1. Engaged Learning model (visions of learning, tasks, assessment, instructional model, learning context, grouping, teacher & student roles.)
2. Student: SAT, ASL attitude, reading and writing attitude, written English proficiency, case studies
3. Teacher: Bilingual teacher self-assessment

We "engaged" our deaf learners by using both ASL and English to increase English literacy skills. We have based our model on current bilingual education and linguistic research on how children best learn two languages. Further, we used current educational techniques such as "critical pedagogy" and "reflective teaching" to deliver our model to

five school sites: NMSD, TSD, KSD, ENCSD, and ISD. We then assessed our students' learning by using the "Engaged Learner" model to construct our English literacy lessons. We also used bilingual measures of language assessment (Fradd & McGee, 1994) and other literacy checklists as well as standardized tests (SAT-9th edition). Our products are listed below.

- Revision of a four-level ASL/English Bilingual Staff Development model in text, on-line, and CD-ROM formats.
- A manual for "Mentor Teachers" who wish to set up our model at their school (text, on-line and CD-ROM formats).
- A laptop loan program for parents.
- A yearly newsletter.
- Videotapes of Project progress.
- The increased use of technology within the schools.

Section 1: Theoretical Framework

We discussed the theoretical frameworks that supported the ASL/English Bilingual Staff Development Model.[6] We also discussed the pedagogy theory based on Wink's (1997) and Dewey's (1938) work, both of which support our delivery of the model to teachers. We then explained how we think our model can impact policy-makers in deaf education to consider both the insiders' and the outsiders' views. We also have used engaged learning principles (see Introduction, pp. 1-4) to gauge teaching and learning and to support the use of technology in the classroom.

ASL/English Bilingual Staff Development Model

Most deaf children acquire, learn, and use two languages throughout their lives--ASL and English. But the age when deaf children acquire ASL and English varies widely according to their home and school environments. For example, deaf children of

[6] Interested readers can read our Year 1 report which gives an extensive review of the literature on bilingual theories, methodologies, strategies, and assessments on our website: www.starschools.org

deaf parents acquire ASL from birth and then acquire and learn English as their parents expose them to fingerspelling and print. Most deaf children, though, have hearing parents who expose them to English (spoken or artificial codes of manual English), and these deaf children typically do not acquire ASL until they meet other deaf children or deaf adults at school. Yet, deaf children of hearing parents, even though they have been exposed to English as their first language, typically acquire ASL rapidly, and they in turn use their ASL to learn more English; in effect, ASL becomes their dominant or first fully acquired language (Mounty, 1986).

What we are proposing in the **ASL/English Bilingual Model** is to introduce ASL as early as possible in the education of deaf students as well as stress the early acquisition and learning of English through eight possible language skills: fingerreading, fingerspelling, reading, writing, typing, lipreading, speaking, and listening (Nover, Christensen & Cheng, 1998). Our approach goes "against the stream" for many professionals. Administrators, teachers, audiologists, speech pathologists, physicians, and parents often find it difficult to understand that language can be acquired and learned through a bilingual approach using both ASL and English. For many reasons, ASL is delayed for most deaf students because either the school or family does not provide an adult ASL model.

But deaf adults know what it means to be bilingual because being a bilingual is what they experience every day. Deaf adults also know that ASL has played a critical role in their cognitive, linguistic, and social development. Such insights of deaf adults and the emerging research base supporting ASL as a means to facilitate the development of English have motivated us to create a model that might fit the deaf students'

needs—that is, of becoming proficient in both languages—ASL and English—at the earliest age possible (see Table 1).

Table 1: Language teaching model for deaf students (from Nover et al., 1998, p. 68).

Bilingual approach (ASL dominance and codeswitching)	**English as a second language (ESL) approach (English only and no codeswitching)**
ASL signacy abilities 1. Watching or attending 2. Signing *English literacy/oracy abilities* 1. Fingerreading 2. Fingerspelling 3. Reading (English text) 4. Writing (English text) 5. Typing (English text) 6. Lipreading 7. Speaking 8. Listening (when appropriate)	*English literacy/oracy abilities* 1. Fingerreading 2. Fingerspelling 3. Reading (English text) 4. Writing (English text) 5. Typing (English text) 6. Lipreading 7. Speaking 8. Listening (when appropriate)

Also, see *Critical Pedagogy in Deaf Education: Bilingual Methodology and Staff Development* at www.starschools.org for an extensive review of the literature on the theoretical bases for the model and Appendix A for the Vision and Mission Statement of the project.

The ASL/English Staff Development Model is made up of four semesters or four levels of readings, seminars, and discussions. In ***Level 1***, teachers discuss theories of bilingualism, first and second language acquisition, and literacy development, including Whole Language. In ***Level 2***, teachers read and discuss how culture influences language acquisition and learning. Teachers study bilingual programs, methodology, and models; the role of spoken English in a bilingual program; as well as language attitudes and assessment. In ***Level 3***, teachers read and discuss issues related to what bilingual education looks like in the classroom. They discuss further how to allocate the two languages (ASL and English) during the school day and how to develop English literacy

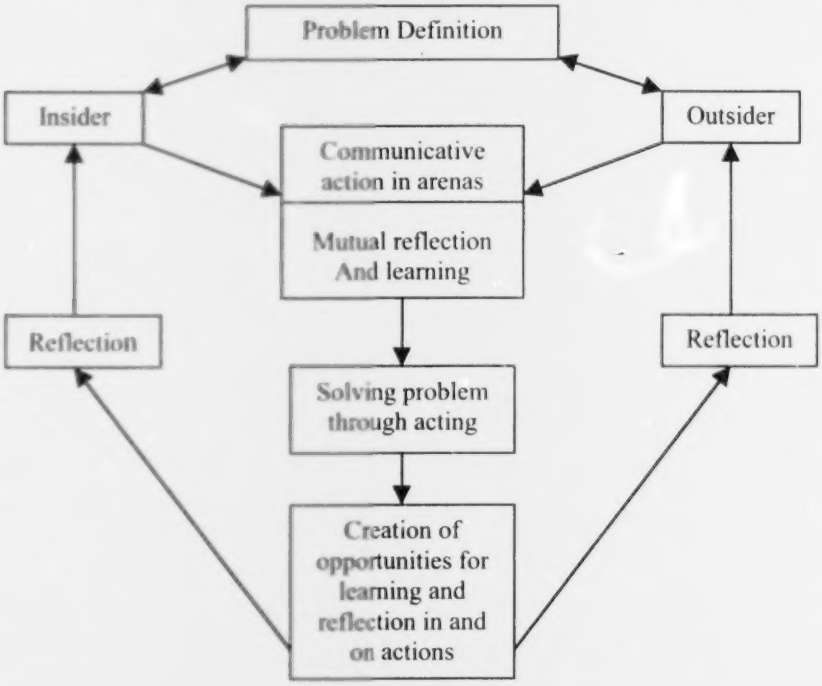
through visual strategies. In ***Level 4,*** teachers read and discuss the role of culture in language assessment. They write up case studies of bilingual students; they assess student language attitudes towards ASL and reading and writing English (see Appendices G & H for seminar topics and syllabi of readings for Levels 1-4).

In this document, we describe how teachers at the Kansas School learned in Levels 1 and 2 and how the teachers from the New Mexico and Texas Schools learned in Levels 3 and 4. We present the data of the teachers reflecting upon their learning in Sections 3 and 4 of this document.

Seminars: Critical Pedagogy, Reflective Teaching, and Action Research

The major product of our project is the ASL/English Bilingual Staff Development Model. The process we use to deliver our product is guided by critical pedagogy, reflective teaching, and action research techniques (Greenwood & Levin, 1998; Stringer, 1996) (see Figure 2).

Figure 2: The Action Research Model (Greenwood & Levin, 1998, p. 116).



Critical pedagogy is a process in which teachers "name" their beliefs about language acquisition, language learning, and language teaching, "reflect" critically on these beliefs, and then "act" on them in the classroom when teaching deaf students. In collaboration with their colleagues and deaf students, teachers learn new information about language learning and language teaching. Then, teachers explored ways of using this knowledge (Wink, 1997).

Notions about critical pedagogy are similar to Dewey's (1938) ideas about reflective teaching--a theory which describes how teachers go through three stages of reflection: problem definition, means/ends analyses, and generalizations. Why are these processes—critical pedagogy and reflective teaching—important to us?

A central issue in education reform in language teaching is for teachers to arrive at their own conclusions about how deaf children best acquire and learn language by reflecting on their own beliefs and assumptions. We must start with where the teachers are in their thinking about language acquisition and language learning. For instance, many teachers have "common sense assumptions" about language acquisition and language learning, which has focused on *monolingual* approaches. That is, for many teachers, English has been traditionally thought to be best taught through amplification, auditory and speech training, or artificial codes of manual English. For many teachers, using *bilingual approaches* with deaf students is a new idea. Monolingual approaches, though, are still the "norm" in deaf education programs and are typically advocated by hearing (and some deaf) persons in authority who may have few experiences meeting deaf adults who use both languages daily.

But deaf and hearing persons, too, harbor false assumptions about how deaf children acquire and are taught language. Many of these assumptions are based on deaf and hearing adults internalizing negative beliefs about ASL. For instance, some deaf and hearing adults think ASL is inferior to English, or ASL is a language to be used only with slow learners, or even that ASL is a "dead" language. Some deaf and hearing teachers may rely on outdated language teaching techniques, which rely totally on rote memory, sentence patterns, and memorization of vocabulary or other bottom-up processes.[7] By forcing deaf children to learn language as a prescription of what English the teacher thinks students should know, teachers can overlook a powerful teaching resource—using ASL to support the acquisition and learning of two languages—ASL and English—as well as using ESL approaches to teach English.[8]

Such "common sense" or false assumptions of teachers have not been based on psycholinguistic studies of how deaf children best acquire language, nor are these assumptions based on sociolinguistic research on how deaf persons use language in social contexts with adults and peers. In fact, these false or "common sense" assumptions are often the unexamined beliefs of teachers. Therefore, we encourage teachers in the project to read and critically reflect on language teaching issues. After teachers read, reflect, and observe closely how their students are using both ASL and English, then teachers can develop practical language teaching strategies based on the real bilingual needs of their

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[7] A bottom-up process uses information that is already in the data such as words and sentences. As applied to reading comprehension, a bottom-up approach would be understanding a text mainly by analyzing words and sentences in the text itself rather than using a top-down approach which would make use of the students' previous knowledge, expectations, experiences, and native language in reading the text (Richards, Platt, & Weber, 1985).

[8] Our definition of ESL approaches to teaching deaf children English is fully described in our first-year report, Critical Pedagogy in Deaf Education: Bilingual Methodologies and Staff Development, p. 10-11.

deaf students. When teachers arrive at their own conclusions, then they go through the process by which, we believe, true educational reform can take place.

When using critical pedagogy and reflective teaching techniques, our data show that teachers' values, beliefs, and cognitive skills changed. As the written reflective logs showed, teachers developed a technical vocabulary for thinking, talking, and writing about teaching practices. Instead of seeing the deaf student as "communicatively impaired or disordered," teachers wrote in their logs about the child as an emerging "deaf bilingual" who was on different levels of acquiring and learning his/her first and second languages. Instead of talking about their schools as providing a "subtractive" environment emphasizing only one language, teachers talked about their schools providing an "additive" environment where two languages were given equal status. Instead of having students read silently or sign word for word a printed text with little comprehension, teachers provided activities for the student to use codeswitching[9]--moving from ASL to English to get meaning from the text. And instead of ignoring the deaf child's ASL competence in language assessment, the teachers experimented with checklists to examine their students' ASL competencies.

We combined critical pedagogy and reflective teaching techniques with community-based action research (Greenwood & Levin, 1998; Stringer, 1996). Action research is social research carried out by a team of teachers, mentors, and an educational research team (ERT).[10] Using community-based action research techniques, the teachers

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[9] Code switching is a change by a speaker, signer, or writer from one language or language variety to another. Code switching can take place in conversation when one speaker uses one language and the other speaker answers in a different language. A speaker may change languages in the middle of a conversation or even in the middle of a sentence (Richards et al., 1985).

[10] The educational research team was made up of 10 members, five of whom were deaf. We tried to provide a balance of deaf and hearing teachers in our seminars; however, few deaf teachers were employed

gathered relevant information on their deaf students to build case studies of how students were acquiring and learning language. Through the seminars, the teachers *looked* and analyzed what was happening in their classroom, *thought* about it, then collaboratively figured out how their deaf students were acquiring and learning language. Teachers then planned and *acted* by setting up language and English literacy lessons based on teacher discussions and evaluated these lessons.

Such action research procedures related to bilingual education for deaf students as outlined above is a collaborative approach that includes both the insiders' view (deaf view) and the outsiders' view (hearing view). Such collaboration focuses on methods of inquiry that take into account the deaf students' history, culture, communication, and emotional lives.

Traditionally, the insiders' or deaf view has not been given the recognition and importance it deserves. We have democratized the research process by including deaf members to produce a more equalized and balanced language research model than those models obtained by using only the outsiders' (hearing) view.

In Year 1, we examined concepts of "audism," "hearization," and "authoritarianism"—all of which are attitudes that oppress deaf persons.[11] In using community action research techniques in Year 2, we examined the deaf and hearing or insider and outsider view more closely. In bringing the deaf view to the forefront, we examined how vital this input is to our understanding of bilingual teaching and learning. Deaf persons, in a sense, are the "owners" of the problem of bilingual language

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at the elementary level so this was not always possible. In the "best of worlds," both deaf and hearing teachers are needed to carry out the goals of the ASL/English Bilingual Approach.

[11] Audism, hearization, and authoritarianism are defined in our first-year report on p. 4 of *Critical Pedagogy in Deaf Education: Bilingual Methodology and Staff Development.*

acquisition because they depend on both languages for survival; thus, their contributions are needed in any language planning or instructional model for deaf students.

Different but equally important, we think, is the outsiders' view of the hearing professional. The outsiders who come from outside of the Deaf community have acquired and learned ASL as a second language for work purposes. Also, many orally trained deaf persons acquire and learn ASL as a second language. We think that both views are equally important to understand fully how deaf children acquire and learn language. And by having both hearing and deaf persons involved in revising and refining the ASL/English Bilingual Staff Development Model, we can make sure that both views—insiders and outsiders—are taken into account.[12]

Technology Component: Engaged Learner's Model

As we mentioned in the introduction, our project is one of several sponsored by the USDLC consortium that uses technology to distribute learning to schools throughout the country. In each of the USDLC projects, project staff created groups of collaborating teachers and students using technology. Project staff created activities for students that used the eight variables of the "Engaged Learners" model.

Related to our project, as teachers read, observe, think, and discuss notions about bilingualism related to deaf children, they began to formulate literacy practices based on these reflections and observations. These literacy practices are also based on the "Engaged Learners" model (see Introduction, p. 1-2).

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[12] Definitions of insider vs. outsider can change depending on the research questions. Our definition of insider vs. outsider refers to deaf vs. hearing persons' views on language teaching for deaf students. Another definition can relate to assessment. The insiders' view of children's language ability can be an assessment of the children's attitudes toward their own reading, writing or ASL abilities. In contrast, outsiders' view of the child's language ability can be that of the teachers who administer some kind of test to assess ASL or English.

Section 2: Content, Activities, Teachers, Students, and Administrators

In this section, we describe the content and activities and give background characteristics of the teachers, students, and administrators who participated in Year 2 of the project.

Project Year 2 Content

The ASL/English Bilingual Staff Development training was made up of four levels (or 4 semesters) of training constituting about 96 clock hours. Teachers attended weekly seminars (12 per semester), completed assigned readings, wrote answers to seminar questions in reflective logs, discussed their ideas in seminars, and applied what they had learned in seminars to their teaching (see Appendices C & D for a list of topics, seminar questions, and readings for Levels 1 through 4).

The project director and mentor teacher from NMSD developed the syllabi for the levels with contributions from other mentor teachers at TSD and KSD. In the Fall and Spring of each year, the teacher-mentors from each school distributed books, journal articles, and syllabi to the participating teachers. Teachers met for two hours each week with the mentor teacher leading the discussion. Teachers wrote in reflective logs about the readings and turned these logs in to the mentor-teacher. The mentor-teachers sent these written logs to the project director for analysis. Teachers were also videotaped periodically through the year while teaching deaf children.[13] The schools sponsored guest speakers who provided extra workshops for the teachers (see Appendix B).

[13] Teachers were provided stipends, books, journal articles, and reading material for the project.

We elaborated on our activities during Year 2. We have linked our activities to "Engaged Learning" Variables—the unifying thread that combines all of the USCDL Star Schools projects.

Project Year 2 Activities (1998-99)

1. **The project director and mentor-teachers developed and refined the teacher seminar topics and syllabi for Levels 1, 2, 3, and 4.**

During Year 2, the project director and mentor-teacher (Tommie Brasel from NMSD) met on a regular basis to revise the syllabi for Levels 1 through 4 (see Appendices C & D for a copy of these revised syllabi). Betty Bounds and Johnette Scogins from TSD and Pam Shaw, Nancy Eades, and Luanne Ward from KSD made comments on the syllabi. Project staff contributed more than 100 hours of consultation and collaboration.

➢ ***Engaged Learning Variable: Assessment***

This activity resulted in a product (the syllabi for Levels 1-4) for a real audience (the teachers) and for a useful purpose--to improve language teaching.

2. **NMSD, TSD, and KSD teachers (n = 25) participated in weekly seminar meetings where they read articles, thought, wrote, and discussed them in order to develop language teaching strategies.**

In the Fall of 1998, the mentor-teachers from each school gave out the syllabi, topics and list of readings for the semester. The teachers met each week in seminars where they discussed their readings and reflections and turned in their reflective written logs. This routine was repeated in the Spring of 1999.

At each of the three schools, each seminar was held in a library or common room where the teachers, the mentor-teacher, and sometimes visitors attended. The mentor-teacher led the discussion and encouraged teacher participation. Each seminar lasted for

approximately two hours. The sessions were conducted in ASL. English was used for written explanations of bilingual terms and concepts.

➢ ***Engaged Learning Variable: Visions of Learning***

Teachers (as learners) actively develop a repertoire of thinking/learning strategies on how to teach language to deaf students. The learners (the teachers) develop new ideas and understandings in conversations with other teachers.

3. **Teachers at the three schools wrote reflective logs on the topics presented in the seminars. Teacher writings taken as a whole constitute over 1,000 pages of written documentation on their learning**.

Reflective written logs were collected by the teacher-mentors and mailed to the project director and researcher-consultant for analysis (see Sections 3 and 4).

➢ ***Engaged Learning Variable: Tasks***

Teachers were given a task pertaining to the "real world" (their work as teachers). Their written logs involved integrating disciplines (linguistics, child language development, bilingual education) to solve problems (how to develop an appropriate bilingual environment so that deaf children can acquire and learn languages and to address issues (how deaf children are considered to be bilingual).

4. **The project director and staff developed and modified assessment instruments for deaf bilingual students by adapting work from bilingual education. Copies of these assessment instruments are in Appendices G & H.**

➢ ***Engaged Learning Variable: Assessment***

This activity resulted in a product (four assessment instruments) for a real audience (the teachers) and for a useful purpose (--to improve language teaching).

5. **The project director with mentor teachers trained the new mentor teachers from ISD, ENCSD, NMSD, KSD, and TSD. Meetings were also held with administrators and staff from two new schools: the Illinois School for the Deaf**

(ISD) and the Eastern North Carolina School for the Deaf (ENCSD) to begin planning for the third year (1999-2000) of the project.

The project director along with the superintendent and director of instruction of NMSD, made trips to ISD and ENCSD to explain the project and to begin planning for Year 3 (1999-2000) when ISD and ENCSD will begin Levels 1 and 2 of the ASL/English bilingual staff development training.

- ***Engaged Learning Variable: Learning Context)***

We expanded our instruction (ASL/English Bilingual Model) to the teachers and staff from ISD and ENCSD as they became part of our learning community. We formed collaboration with ENCSD and ISD.

6. **The Project director with mentor-teachers developed a "Mentor's Training Manual." Using this manual, a mentor-training workshop was conducted by project staff in August of 1999, and mentor-teachers from NMSD, TSD, and KSD trained the new mentor-teachers from ISD and ENCSD.**

The Project director and mentor-teachers (primarily Tommie Brasel) developed a "Mentor's Training Manual," a 300-page document which describes how other mentors can set up Levels 1 through 4 of the ASL/English Bilingual Staff Development Model at their school. The manual contained syllabi, seminar topics, seminar questions, and guidelines for those interested in mentoring teachers using the model. (Plans were also made to use this manual to develop a CD-ROM in the fifth year of the project.) This "Mentor Training Manual" was used to train new mentors from ISD and ENCSD in August of 1999.

- ***Engaged Learning Variable: Teacher Roles***

The mentor-trainers as "teachers" helped the new mentors by modeling, mediating, explaining, redirecting focus, and providing options during the mentor training sessions.

➢ ***Engaged Learning Variable: Student Roles***

Teachers as students were assisted by mentor-teachers to develop ways to simulate the role of the practicing "bilingual teacher" for deaf students.

➢ ***Engaged Learning Variable: Assessment***

Project staff developed a product (Mentor Manual) for a real audience (teachers at ISD and ENCSD).

7. **The project director and mentor teachers developed a "Star Schools Project Teacher Self Assessment" (see Section 5 for discussion of these data).**

The project director and mentor teachers developed a self-assessment questionnaire in which teachers rated their abilities in language/literacy proficiency, bilingual/ESL education and deaf education, instructional language assessment and research, and public engagement (see Appendix E for a copy of this instrument).

➢ ***Engaged Learning Variable: Assessment***

Project staff developed a product (Instrument for Teacher Standards) for a real audience (teachers interested in a bilingual approach).

8. **Using PowerPoint technology, the project director and staff disseminated information about the progress of the project to the USDLC Board (March 1999); administrators, teachers, and parents in Canada (January 1999); superintendents of residential schools (Council of Educational Administrators in Schools for the Deaf (CEASD, May 1999); teachers-in-training at Lamar University, Beaumont (June 1999), and professionals at the Convention of American Instructors of the Deaf (July 1999).**

The project director and project staff made PowerPoint presentations on the progress of the project to various groups in Canada and the U.S.

➢ ***Engaged Learning Variable: Assessment***

The PowerPoint presentations were products of the grant that involved a demonstration for a real audience.

➢ ***Engaged Learning Variable: Grouping***

The project director and staff made presentations about the project to different groups: USDLC Board members not in deaf education, teachers and administrators in deaf education, parents of deaf students, Lamar graduate students in teacher-training, and professionals in programs in the U.S. and Canada.

9. The project staff developed a videotape describing the project, titled "Bilingualism and Deaf Children."

The project staff developed a 30-minute videotape on the project. It was produced by Texas StarNet and was nationally distributed.

➢ ***Engaged Learning Variable: Assessment***

The videotape is a product from the grant that involves a demonstration of bilingual methods for a real audience and real purpose.

10. Project staff continued to develop and add to the student database which includes SAT scores, language samples, language attitude surveys, and case studies.

Even though this project focused on staff development, we are also collecting data on the students' performance in reading and language because these data will examine the effectiveness of the model. A database has been set up at the NMSD which will include students' scores from all five participating schools during the five years of the project. Case studies of deaf children learning both languages as well as students' language attitudes toward ASL, reading, and writing will also be extracted from the teachers' reflective logs.

➢ ***Engaged Learning Variable: Assessment***

Assessment is seamless and ongoing and is part of the instruction. Assessment is culturally fair.

11. Project staff created and mailed out a newsletter to parents and families of children in the project.

The project staff created a newsletter sent out each year to the parents and families of children in the project. This newsletter contains information about the project as well as practical ideas parents can use to encourage their children to develop two languages—ASL and English.

➢ ***Engaged Learning Variable: Assessment***

The parent newsletter is a product for a real audience; it has a useful purpose.

12. Project staff used visual technology in many innovative ways to engage deaf students in learning.

The project staff used visual technology throughout the second year of the grant.

a) The laptop family loan program linked families at remote distances to their children at NMSD. Six families received laptops to communicate with their deaf children (see Section 6 for an elaboration).
b) The instructional videotape, *Reading to deaf children: Learning from Deaf adults* by David Schleper was distributed to parents in the project.[14] Storybooks and CD-ROMs with ASL translations were also available in the classroom.[15]
c) Email among students and between teachers and students was promoted and expanded. Six deaf adults from multicultural backgrounds (African-American, Puerto Rican, Asian, and Mexican-American) at Lamar University, Beaumont, provided a videoconference workshop for eight teachers in the project at TSD on Deaf Multicultural issues.
d) Teachers used digital cameras for language experience stories and other language activities in the classroom. Mentor-teacher Kathy Glyer came up with more than 40 ways to use digital cameras with deaf students (see Appendix F).
e) Students conducted research projects using WWW/Internet.

➢ ***Engaged Learning Variable: Instructional Model***

The technology programs at NMSD, TSD, and KSD provided a learning environment that was interactive and responsive to the students' needs. Using visual technology (videoconferencing, digital snaps, videotapes, CD-ROMs, laptops), teachers made the

[14] Available through Harris Communication, 1-800-257-5160 (voice) or 1-800-582-9237 (TTY).
[15] Available through "Visual Storyreading Program," Kansas School for the Deaf, 913-791-0573 (v/TTY).

connections between ASL and English and demonstrated how meaning can be expressed in both languages.

13. **The project staff developed a vision of the technology infrastructure that can be used by teachers to support the ASL/English Bilingual Model of Staff Development.**

In Table 2, we present our technology infrastructure and show what technologies were used by the teachers in the first two years, and we predict what other technologies will be used in the next three years.

Table 2: Technology infrastructure (Teachers increase the use of technology to support the ASL/English Bilingual Staff Development Model)

Year 1 (1997-1998)	Year 2 (1998-1999)	Year 3 (1999-2000)	Year 4 (2000-2001)	Year 5 (2001-2002)
Email	Email	Email	Email	Email
Digital cameras	Digital cameras	Digital cameras	Digital camera	Digital camera
Internet/WWW	Internet/WWW	Internet/WWW	Internet/WWW	Internet/WWW
PowerPoint	PowerPoint	PowerPoint	PowerPoint	PowerPoint
	Videoconferencing	Videoconferencing	Videoconferencing	Videoconferencing
	Laptop loan	Laptop loan	Laptop loan	Laptop loan
	ASL/English videos	ASL/English videos	ASL/English videos	ASL/English videos
	ASL/English CD-ROMs	ASL/English CD-ROMs	ASL/English CD-ROMs	ASL/English CD-ROMs
	WEB report	WEB report	WEB report	WEB report
		Bulletin boards	Bulletin boards	Bulletin boards
		Chatrooms	Chatrooms	Chatrooms
		CD-ROM of ASL/English Bilingual Model (planning)	CD-ROM of ASL/English Bilingual Model (planning)	CD-ROM of ASL/English Bilingual Model (completed)
			Webcasting	Webcasting
				Portable distance learning equipment in classroom, including document projectors, VCR, camera, videomixer, computer

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- ***Engaged Learning Variable: Vision of Learning***

The learners (project staff) are involved in setting goals, choosing tasks, and developing a plan to incorporate more technology in the teaching of two languages—ASL and English to deaf students (see Table 2 for our technology plan for the five years of the project).

Description of Administrators, Teachers, and Students

In this section, we describe the background of the administrators, teachers, and students who participated in the project.

Administrators. The superintendents and assistant superintendents were involved in the planning stages of the project. Often, they attended ERT meetings and consulted with the project staff. Administrators also often provided extra funding such as stipends for additional project teachers to expand the project.

Most of the administrators from the three schools were female, White, and hearing with Masters as terminal degrees (see Table 3).

Table 3: Background characteristics of administrators in the second year of the project (1998-99) (N = 6).

Background Characteristics	N	Percent
Gender		
Male	2	33%
Female	4	67%
Ethnic Background		
Anglo	5	83%
Indian	1	17%
Hearing Status		
Deaf	2	33%
Hearing	4	67%
Terminal Degree		
Masters	4	67%
Doctorate	2	33%
Total	6	100% in each category

Teachers. There were a total of 30 teachers, including mentor-teachers, who participated in the second year. For the most part, teachers were White, hearing,and middle-aged, with Masters degrees, and had taught from 5 to 30 years. Most had state certification and CED certification (see Table 4).

Table 4: Background characteristics of teachers for second year project (n = 30)

Background Characteristics	N	Percent
Gender		
Female	29	96%
Male	1	4%
Age		
25-35yrs.	13	43%
36-45yrs.	9	30%
46-55yrs.	8	27%
Ethnicity		
White	30	100%
Hearing Status		
Deaf	12	40%
Hearing	18	60%
Terminal degree		
BA	8	27%
MA	20	67%
Ph.D.	1	3%
# Yrs. Taught		
0-5yrs.	8	26%
6-10yrs	8	26%
11-20yrs.	8	26%
21-30yrs.	5	16%
31+ yrs.	1	16%
Certification		
National (CED)	9	30%
State	23	77%

Students. A total of 220 students in the three schools participated in the project. We broke down the background characteristics of the students according to school. Because of the small numbers of elementary children in some of the classes, it was decided to expand the bilingual project to middle and high school students. In the fifth year of the project, we will examine in more depth the background characteristics of the

students with their ASL and English literacy achievement. Our presentation of these data will assist us in compiling our database.

NMSD students. About 60 students participated in Year 2 of the project. The majority were female, half were Hispanic, followed by Native American children. They ranged in age from 3 to 19 and were in all levels of school. About 12% had additional handicaps. Most of the children were from hearing families (see Table 5).

Table 5: Year 2 students (1998-99): Background characteristics of the students at the New Mexico School for the Deaf (n = 60)

Background Characteristics of students	**N**	**Percent**
Gender		
Male	23	38%
Female	37	62%
Ethnic background		
White	13	21%
Native American	14	23%
Hispanic	30	50%
African-American	2	3%
Asian-American	2	3%
Age		
0-5	7	11 %
6-11	16	26%
12-14	22	37%
15-19	16	26%
Grade Level		
Preschool/kindergarten	11	18%
Elementary	11	18%
Middle school	28	47%
High school	10	16%
Additional handicaps		
Yes	7	12%
No	53	88%
Parent Hearing Status		
Deaf	9	15%
Hearing	51	85%
Age of Onset		
Birth		
Unknown		

Note: Empty cells mean data were unavailable at this time.

TSD students. About 83 students from the Texas School for the Deaf participated in the second year of the project. Deaf males outnumbered deaf females. Almost 30% of the students were non-White, primarily Hispanic. Most were fewer than 12 years old and were enrolled in the elementary department. About six students in the project had additional handicaps. From preliminary data we collected, the TSD group had a large number of deaf parents in the sample of children. In fact, 35 percent of the TSD children came from deaf families. See Table 6.

Table 6: Year 2 project students: Background characteristics of the students at the Texas School for the Deaf (TSD) (n = 48)

Background Characteristics of students	N	Percent
Gender		
Male	44	53%
Female	39	47%
Ethnic background		
White	57	67%
Native American	1	1%
Hispanic	16	19%
African-American	5	6%
Asian-American	1	1%
Other	1	1%
Age		
0-5	18	22%
6-11	36	43%
12-14	10	12%
15-19	16	19%
Grade Level		
Preschool/kindergarten	23	22%
Elementary (grade 1-5)	30	36%
Middle school (grade 6-9)	10	12%
High school (grade 10-12)	20	24%
Additional handicaps		
Yes	6	7%
No	42	93%
Parent Hearing Status		
Deaf	35	42%
Hearing	48	58%
Age of Onset		
Birth	23	26%
Unknown	18	22%

Some cells do not equal 100% because of missing data.

KSD students. About 79 students from the Kansas School for the Deaf participated in Year 2 of the project. These students were predominantly male, Anglo in background, and most were under 12 years old and at the elementary level. No data were available at this time on age of onset and parent hearing status. (see Table 7).

Table 7: Year 2 (1998-99) students: Background characteristics of the students at the Kansas School for the Deaf (KSD) (n = 79)

Background Characteristics of students	**N**	**Percentage**
Gender		
Male	49	62%
Female	30	38%
Ethnic background		
White	34	87%
Native American	1	2%
Hispanic	1	2%
African-American	3	7%
Asian-American		
Other		
Age		
0-5	7	9%
6-11	60	76%
12-14	12	15%
15-19		
Grade Level		
Preschool/kindergarten	14	18%
Elementary (1 grade – 5grade)	44	55%
Middle school. (6grade-9grade)	21	26%
High school. (10grade-12grade)	0	
Additional handicaps		
Yes		
No		
Parent Hearing Status		
Deaf		
Hearing		

Note: Empty cells mean data were not available at this time.

Our student data show we have a diverse group with different background characteristics. As mentioned above, in Year 5 we plan to study the students' achievement scores and explain their progress using the background variables above.

Section 3: Findings: Written Reflections of KSD Teachers (Level 1 and Level 2: Fall 1998 and Spring 1999).

An important part of the ASL/English Bilingual Staff development training was for the teachers to write reflections on seminar readings and to comment on how they applied bilingual theories to their daily teaching.

During Year 2 (1998-99), three schools participated: the Kansas School for the Deaf (KSD) in Olathe (Levels 1 and 2 of the training), the New Mexico School (NMSD), and the Texas School for the Deaf (TSD) (Levels 3 and 4 of the training). We highlight teachers' comments below. Please refer to Appendices C & D for a list of topics, seminar questions, and readings.

Recall that after teacher mentor teachers gave out the syllabus, copies of the readings, and seminar questions, teachers read the materials, answered the reflective questions, then met as a group to discuss their findings. The teachers' written reflective logs give us a running account of how teachers changed in their understanding of how deaf children learned two languages. See our first year report for a fuller description (www.starschools.org).

The project staff used critical pedagogy (Wink, 1997), reflective teaching (Calderhead, 1989; Dewey, 1938;), and community-based action research techniques to deliver the ASL/English Bilingual Staff Development Model to the teachers. In other words, teachers read articles, wrote in their logs, and had discussions in seminar groups

where they critically reflected on how deaf children were acquiring and learning language and how teachers can better teach language using bilingual and second language research. Teachers then applied these principles, strategies, and methods to their deaf students and examined their language growth in ASL and in English literacy. Teachers relied on the insiders' (deaf community's) view and outsiders' (hearing community) view in guiding their language teaching practice for their schools. These techniques—critical pedagogy, reflective teaching, and action research—were considered an important part of the project—that is, to create language teaching reform from the views of the teachers within the schools rather than dictating a change from the outside.

Here are teachers' critical reflections from the Kansas School for the Deaf where teachers went through Levels 1 and 2 during the second year of the project.

Kansas School for the Deaf (KSD)—Level 1 (Fall 1998)

Reflective Log Question #1:

a. Discuss your position on Francois Grosjean's (1996) belief that deaf children should be raised bilingually (their first language being sign language and second language being the written form of majority language).
b. Describe one student in your classroom. Do you consider this child bilingual?

Most teachers agreed that their deaf students were "deaf bilinguals" meaning they had observed them using two languages. Here are some teachers' comments.

> Yes, deaf students are bilingual. Exceptions to this are students who come from homes where language is not accessible. These students are in grave danger of growing up with limited fluency in any language.
>
> My observations, overall, are that children who enter school from homes where sign language is used fluently are initially able to participate more fully in our program.
>
> One deaf teacher described how she thought of herself growing up "bilingually."
>
> During my school years, I had been a "deaf bilingual student." I was using ASL comfortably with my friends in the dorm, deaf family, friends

> and deaf teachers. I was getting used to writing English with my family and hearing friends, but I was not feeling comfortable signing in Signing Exact English as it was not natural for me and hard to express myself creatively, and difficult to think ahead what to say in order with English signs.

Teachers agreed that being bilingual, included fingerspelling and writing.

> He never fails to amaze me how much he knows how to fingerspell the different kinds of fresh water fish…It shows that he has learned printed English through fingerspelling.

> I think it's important for deaf children to begin to express themselves on paper at a young age. The experience of drawing/writing something to express themselves should be a beginning before making the connection between reading and writing in the majority language.

Several teachers gave case studies of deaf children of deaf parents who clearly were bilingual as in the case of Rachel.

> A bilingual child I can think of is Rachel. She was my first year student. She was 4 years old. She has a large deaf family. I was in awe of her communication abilities. We had many long conversations. She questioned, gathered, and shared information with me. Signing and fingerspelling were her everyday language.

But another teacher described Molly, a young girl still struggling with any language.

> Molly is 8 years old. She has a profound hearing loss from birth and an unknown etiology. Her hearing loss was discovered in preschool in the public schools; she transferred to a residential school at age 6. Her family is hearing and lives in rural Kansas. They are learning signed language but do not have access to classes and see Molly only on weekends…. Molly has difficulty paying attention for long periods of time and communicates with basic sign language; she rarely uses fingerspelling and recognizes only short words at the below pre-primer level. As for person-language bond, I don't think she has a concept of either ASL or English language. I have seen her mostly gesture with her parents and use simple labeling vocabulary (cookie, bathroom etc.). I don't consider this child bilingual yet because she still has not developed a sense of any language.

Reflective Log Questions #2:

a. Based on your experiences and readings, what are the three most significant characteristics of the deaf bilingual child?
b. Do you think Ovando and Collier's (1998) 90-10 program model can work with deaf students? (90% of instruction in L1 and 10% instruction in L2).

> The three most significant characteristics of a deaf bilingual child are: severe hearing loss, fluency in ASL and can read and write English.
>
> Not all deaf children have equal opportunity to acquire their L1 (ASL)…they do not all have the same social/cultural experiences to help develop cultural values…the family attitude for the deaf bilingual child learning his/her L1/L2 is often not the same...hearing parents may not value ASL.
>
> Three most significant characteristics of a deaf bilingual who faces unique challenges are: the Deaf child without any language for a while, constant changing of methods which confuse Deaf students at school and the medical views by hearing professionals.

Teachers then commented on how a bilingual teaching environment (90% in first language and 10% in second language) would work for deaf students. Several teachers expressed concern about the introduction of print (the L2 component) in a bilingual classroom.

> I think the 90-10 model would not work for deaf students in the same way it works for hearing students. Most hearing students have familiarity with the written form of their native language from the time they are small. ASL does not have a written form. To withhold written language until 2nd or 3rd grade is too late. We are in the unique position of helping most kids develop proficiency in sign language and simultaneously introducing them to English through print. I agree that the emphasis should be on ASL in the pre-K, kindergarten and 1st grade years, however, I believe that print should be introduced as early as possible, coupled with fingerspelling and pictures, so kids can make the connection between picture-sign-word.
>
> I have some reservations about delaying the introduction of printing materials and writing until the second grade…also, what provisions are made for the variance of language exposure/acquisition from birth to K?…it seems that a focus on parents/infant programs and language acquisition for all deaf children being more balanced would be more ideal.

> On the surface, it [90-10 program] would appear to be a system to try with young deaf children. However, there are several concerns I have when looking at this model. Can we presume that all Deaf children have a solid foundation in ASL when they start kindergarten? This is certainly a goal for the future but not a reality at this time. Where would be children who would further need to develop their first language before they could benefit. My second concern would be the timetable for how much instruction would be in the first and second language. For Deaf children, I wonder if it might take more years to reach the point where half the time is spent in each language.

Reflective Log Question #3:

a. Based on your readings/experiences, can a whole language philosophy[16] be built into a bilingual model for deaf students?
b. Describe an ASL learning strategy that you have observed with your deaf students. Describe one English learning strategy.

Most teachers supported a whole language approach in a bilingual classroom focusing on the whole text and the students' background knowledge and experiences. Here are teachers' comments.

> For deaf students, it is most appropriate model for them to learn English as their second language…it is easiest for most children to become familiar with and retell enjoyable and interesting text, then learn more and more of the words and the letter/sound patterns within them.

> Yes, a whole language philosophy can be integrated into a bilingual educational model for deaf children because ASL is their natural language, and English is their second language...the whole language philosophy gives the deaf children the opportunity to learn English as second language in the meaningful context. With whole language, deaf children will have better understanding of how to use English.

> One of my students, a third grade boy, comes from a home where signed English and speech is used. His most used strategy for expanding ASL vocabulary is mime…He can mimic anything. When he does that, either a classmate or I will give him the formal sign concept so he can incorporate that into his daily language.

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[16] The whole language approach emphasizes the whole connected text with alphabetic and word learning assumed to occur implicitly. In contrast, the phonics approach or other skill-driven approaches emphasize sound-spelling patterns like the "direct code" approach. Practitioners vary on how they use these approaches, some to a greater (or lesser) degree than others. Today, many teachers use a combination of these approaches, depending on the specific reading skills to be taught.

Another teacher mentioned storytime as an opportunity for deaf students to use ASL.

> She paid full attention during storytime, circle time and so on…She loved having me storyreading with her on a one on one basis…she often pointed to the pictures in storybook and looked at me with a "tell me what the picture is all about" expression…after several months, she started to use ASL on her own."

The teacher continued by explaining how this child was able to identify English print.

> She was exposed to the rich print environment in the classroom. She started looking at the printed words, asking me what it said. The next year, she started reading some words on her own…she was highly motivated learning the printed words.

An innovative idea to develop ASL concepts and English print equivalent was given by one deaf teacher.

> To teach students different handshapes of ASL as part of the Deaf Studies curriculum. One handshape is shown on the overhead. Each student has the opportunity to sign ASL words based on the specific handshape on the transparency, then fingerspell the word correctly for English learning. In addition, they have to determine which category that their sign is—one-handed signs, two-hand signs, dominant-passive hand signs. The rest of the classmates are watching and learning both languages—ASL signing and English vocabulary at the very same moment.

Teachers mentioned other strategies using ASL.

> I have watched them use their ASL skills for comprehension of something and then turn around and explain the concept to a child near them when they knew the child did not understand due to less receptive language. I have observed the older of the students in this class sign printed words to himself and use his fingers to fingerspell it as he writes the words down.

> Her strategy for learning English words is to copy them from the TV or book, try to use them in a sentence, and then ask for meaning in class. She uses the context around the word very effectively to construe meaning.

> As a deaf adult, I would figure out the context if I did not recognize the new word. I also will look at the root word to get the clue of the new word. It works well for me.

Reflective Log Question #4:

a. Select one myth that impacted you after reading McLaughlin's (1992) article about myths about second language acquisition. Describe how this changes your teaching.
b. What challenges do your students face in acquiring/learning English?

Teachers were surprised to learn how second languages were acquired. Here is what they wrote.

> The research showing that older students are better language learners really surprised me. That older students had more experience in language analyses made sense.
>
> I disagree that all children learn a second language in the same way.
>
> The myth that the more time students spend in a second language context, the quicker they learn the language…deaf schools used to believe that to teach deaf children only in English (sometimes only oral English) with no sign or ASL permitted in the classroom…in my opinion, the deaf child who has developed a strong first language (ASL) may be able to learn the second language (English).
>
> Some of my students face the challenge of trying to learn English without having a fluency in a first language…they are all faced with deciphering words with multiple meanings that change depending on context. For example, in a story about a knight who lived in the Dark Ages, the students' interpretation of the Dark Ages ranged from a time without electricity, to a person who got old in the dark.
>
> I feel the biggest challenge our young deaf students face in acquiring L2 is that of attitude. We often do not allow enough time for the children to read and write things that are meaningful to them as individuals….I notice too often that many Deaf adults have a negative attitude about English (too hard, too many rules, etc.) They seem to feel that there is no way they can become proficient in their L2.
>
> The students I work with…face the challenge of learning a language they cannot hear…They do not have the incidental language learning available that hearing children do by simply turning on the car radio, television, videos, watching a computer CD, sitting at the dinner table, listening to a story, watching family as they communicate, as 90% are from hearing families…the majority...do not effectively learn to communicate…in basic sign language.

Reflective Log Question #5

a. Which of the three steps that Barnum (1984) stated as needed for deaf children to succeed most impacted you?
b. Describe a sample lesson of whole to part teaching that you use in your classroom. Provide school settings that use a natural sign language as the primary language of instruction in the first four to six grades.

> The step, which most impacted my thinking, and the third one: Seek to give Deaf children positive feelings about themselves and their language and allow them to feel pride in the culture of the Deaf community.
>
> Teachers then suggested sample lesson plans of whole-to-part teaching during storytime, sharing time, social studies, and science.
>
> Take turns to use big books for ASL storyreading and have the same story three days weekly. We then have each child take his/her turn retelling each or two pages.
>
> Another example is our "sharing time" in the morning. A child brings something from home that he/she wants to show the class. Because the child is still pretty young, he/she needs the external context of the object being there. From that comments and questions can help the child to expand what he/she knows about the object. We draw a picture and label it. Finally, I write a simple sentence starting with the child's name and something about the object.
>
> A recent lesson that comes to mind was a combined social studies/science lesson focusing on John Glenn and possible obstacles to his upcoming mission. We started by talking about John Glenn...next, we reviewed what we knew about hurricanes...We looked up Hurricane Mitch on the Internet intellicast web site...Next, I read them the Weekly Reader issue on hurricanes...using ASL and we discussed the article using ASL...the students later read silently the same Weekly Reader issue and answered written questions over the articles. This was an attempt to provide whole to part information in ASL and in English, as well.

Reflective Log Question #6:

a. What second language learning principle changed your teaching after reading McLaughlin (1992)?
b. How can you make your lessons more learner centered? (after reading Freeman & Freeman, 1992).

Teachers commented on second language learning principles. Here is what they said.

> I chose one of the eight second-language learning principles that had an impact on me and it was…bilingual is an asset and should be fostered…I do not think this principle changed my teaching.
>
> There are different cultural patterns in language use.
>
> Language flourishes best in a language-rich environment.
>
> Principle 6 which says that sometimes children give the appearance of understanding when in fact they do not, is an excellent description of my experiences with many deaf children through the years.

Then teachers commented on how lessons could become more learner-centered.

> I recently taught a lesson about how dogs help deaf people…We used a KWL chart to find out what we already knew about dogs that assist people…I chose two books for ASL storytelling, Buffy's Orange Leash by Stephen Golder and Lise Memling and A Place for Grace by Jean Davies Okimoto…we found a deaf preacher in the community who had a hearing dog…the students were fascinated…asked many questions.
>
> A recent lesson on writing descriptive essays comes to mind. The lesson grew out of a student's shared journal presentation. Instead of using what I had planned to use to address descriptive writing, we used the students' Spiderman action figures as our focus. From the Spiderman, we made a web of what we could describe, i.e. things we could see, things we could feel, etc.

Reflective Log Question #7

1. A key principle of whole language/second language learning is that lessons have meaning and purpose. Discuss the implications of this principle in one deaf person's language learning experiences (Nover & Moll, 1997).
2. After reading the above, what conditions existed for this person to finally acquire/learn ASL and English?

Teachers read an account of how one deaf man acquired language and commented on his language learning processes.

> He stated that while he was at the oral school he developed the habit of locating key words and copying without comprehension. Unfortunately, I see the same thing with deaf students even though they are in a signing environment. I do not feel that being in a signing environment guarantees meaningful and purposeful language learning. I think there is a need for educators to focus on modeling/teaching/thinking skills.

> The author has shared his school experiences. He spent 17 years in a 'meaning-less' cultural environment with an emphasis on oral communication. Then, he got into a 'meaning-full' cultural setting by being a dorm resident with other deaf peers. He acquired ASL through his deaf peers. While he was learning ASL, he learned the written language in a new perspective.
>
> The article…certainly illustrates the importance of motivation, meaning and purpose when learning a language.
> He finally acquired/learned ASL and English during his teenage years. This is unique and shows that the myth of learning the language after age 12 is not possible is absolutely false.

Reflective Log Question #8:

a. Traditionally deaf children have learned English with a focus on form (grammar and vocabulary). How can we increase deaf children's opportunities to use English in an interactive setting (during school and home/dorm)?
b. Describe two activities from your classroom that provide deaf children with opportunities for social interaction using ASL? For social interaction using English?

Ideas for increasing deaf children's opportunities to use English in an interactive setting included these strategies: writing notes to classmates and pen-pals across schools, using the TTY to call friends for social chats, setting up classroom cooperative activities where students work on a project together, writing in dialogue journals, sending home a dorm newsletter, and setting up a writing area in the classroom.

Teachers also listed ways they could develop students' social interaction skills with ASL and with English.

> I read aloud the books in ASL. After I read the book to them, we discuss our opinions about the story and characters in ASL. I also modeled for them how to express their opinion on the story in ASL in the beginning of the school year.
>
> Students write about something they want to share, then share it using ASL…a dialogue often occurs among students about the shared topic.
>
> Another activity we do frequently is story re-telling. Students read a story then re-enact or re-tell it in ASL.

> There is a geometry study group…led by a dorm teacher…it is fascinating for me to watch them discussing the theories and problems in ASL. They usually work together for more than 1 hour.
>
> The Print Shop software is popular among the kids from grades 2-12. I teach them how to write thank you/appreciation notes to their loved ones…I try to model for the students how to write letters.
>
> I think the simple act of writing notes is an excellent way to increase the student's use of English…a message board at school and home/dorm is another good way to encourage note reading/writing.
>
> After the students read a book, they write a brief summary and/or draw a picture about the book.

Reflective Log Questions #9:

1. William Stokoe (1974-75) states, "Competence means that the receiver must have a mental map or model of the whole language system somewhere in the brain, so that the incoming speech signals can be recognized, interpreted and understood. Once competence is established, learning to read, learning a special code, and even learning a second language can proceed." (p. 31). How does a deaf child achieve this kind of competence in ASL and English? Explain your response for each language.
2. Using the form attached, analyze language use in five of your classroom activities. Briefly describe what the children are doing with each language.

Teachers reflected and wrote on how they thought their deaf students developed competence in ASL and English after reading Stokoe's (1974-75) work.

> The deaf child achieves competence in ASL by being around ASL…the ASL users model the language to the child in everyday life/situations/events..the language is the whole foundation for children to acquire..once the child is a good/fluent ASL user, he is able to learn his second language, English.
>
> All deaf children tend to use their eyes to observe and listen visually…gain competence…through ASL. Then it will cause those deaf children to learn English as a second language faster and better as they get older.

The teachers were given a form and asked to reflect on which language (ASL and English) they used for certain classroom activities. The teachers' ideas are shown in. Table 8.

Table 8: What language do you use with the following activity?

Classroom Activity	ASL (watching/attending/signing)	English (fingerreading, reading, fingerspelling, writing, typing)
1. PowerPoint (Happy New Years Resolutions…6 slides)	Brainstorm & discuss resolutions, discuss students' PP slides layout.	Write on white board. List resolutions. Type the resolutions on the slides.
2. Daily journal writing	Students take turns sharing/discussing their experience stories.	Students write/draw personal experience stories.
3. Math problem solving	Students attend to ASL explanation of the "problem" and discuss possible solutions together.	Students independently read problem and write a solution.
4. Story/reading time	Students attend to ASL storytelling and discuss story plot, character, events, etc. together.	Students work together to sequence and caption story pictures to form a "class book" of the story.
5. Unit cooking activity	Students attend to ASL explanations of recipe and directions.	Students work in groups to read recipe and measure dry and wet ingredients and as a group to follow mixing/cooking directions.
6. Daily news	Students discuss the events of the day and vote to determine "most important."	Students record news of the day in their agenda books to be taken home/dorm and share with parents.
7. Science	Concepts are explained in ASL.	Use of captioned films, preparation or reports, booklets, displays etc. in English print.

Reflective Log Question #10

a. Successful bilingual programs promote the importance of students' primary language and English as second language. How do we promote ASL as an essential part of bilingual education? Describe two ways you can do this.
b. You are approached by a parent or professional peer who states, "ASL will hurt a child's English development." Using the Padden (1996) reference, how will you educate this person?

Teachers listed ways to promote the use of ASL among teachers: ASL workshops for teachers,[17] ASL/English bilingual workshops for teachers, ASL storytelling training

[17] This project focused on bilingual language teaching methods and did not provide formal course work in ASL; however, it was expected that participating teachers have ASL fluency. We think that ASL training

including showing teachers how they can use ASL retelling of stories/activities in the classroom. Teachers also mentioned they promoted ASL by inviting deaf adults to come to their classes; teachers taught Deaf studies classes; teachers made sure all their demonstrations showed ASL was valued by them. Here are some comments.

> We need to be sure that our lessons involve demonstrations, engagement, and sensitivity. Children need to have demonstrations of meaningful activities given in ASL so that they understand what they are seeing. If the demonstration is meaningful, the child will be motivated to engage in the activity.

> I also think Deaf Studies classes are an important way of promoting ASL. The students are provided a more in depth study of some of the historical and cultural aspects of their language through these classes.

Teachers also commented on how hard it was for parents to recognize the importance of ASL.

> I know it's hard for a hearing person to imagine how a deaf child can acquire/develop English without hearing any words.

> I would talk to them about the importance of having comprehensible input in order to build the pathways that process language from an early age as possible.

> Working with parents closely through the years, I have had many hearing parents of deaf children state that they feel the use of "ASL" will hurt a child's English development. But in actuality, most parents, after talking with them in depth, I find are actually discussing the word speech and not English…these are words that often confuse parents. In fact, most parents need clarification and education in regard to the following words: language, speech, English, ASL, sign language and the various sign systems.

> I would begin by telling the person that it is important to use the child's first language to explain things in order to tap their background knowledge and concept understanding so that they can use this to succeed academically in English.

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for teachers can be a part of every school's staff development programming. Further, we think that teacher-training programs need to provide a rigorous curriculum that includes ASL training as well as English literacy training (i.e., how to teach) in order for bilingual instruction for deaf children to be effective.

In the Spring of 1999, KSD teachers continued their training with Level 2 of the ASL/English Bilingual Staff Development Model training. Teachers' comments follow.

Reflective Log Question #11

a. Freeman and Freeman (1998) discussed misconceptions about bilingual education. Interview two people at your school not in the seminars. Ask "What is bilingual education for deaf students?"
b. Describe a lesson from your classroom which you used ASL and English (bilingual approach).

During the Level 2 training, teachers continued to discuss what it means for a deaf child to be bilingual. Teachers interviewed parents, staff, and other teachers to see if others had misunderstandings about being bilingual. Many persons that the teachers interviewed believed that to be bilingual, you must be fluent in two languages. One deaf staff member reflected on his own youth. As a young child, he was confused by the two grammars of English and ASL. He wished that his teachers knew about both grammars. He also mentioned the particular difficulties hard-of-hearing students have in learning language.

Teachers also described a lesson in which they used both ASL and English. Here are some of their descriptions.

> In a recent lesson we used ASL and English in a bilingual video tape we are making to send to a group of deaf students in France. We began by sharing a postcard sent to me by the teacher in France. Next, we used our map skills to identify France and Toulouse, and the US, Kansas and Olathe. We discussed in ASL how we wanted to respond and decided on a videotape. We used ASL to decide how to plan our videotape then made a sequence flowchart (like a storyboard) in English. We then practiced our parts, using ASL and did filming. We now are in the editing stage and will, hopefully, be able to either caption our tape or send a written transcript with it.

> I did a lesson on punctuation involving statements, questions and exclamations. First, I gave the students a page of twelve English sentences (without the punctuation at the end). Then I signed the sentence one at a time. The kids located each sentence after I had signed it in ASL.

> After locating each of the sentences we discussed ASL expressions I had used and decided if the sentence was a statement, a question or exclamation. We placed large copies of each sentence on the board in the 3 categories. The kids took turns signing them and using the appropriate expression for review.

Reflective Log Question #12

a. Based on your own teaching experiences, describe which process in the development of cultural identities is dominant in your classroom—biculturalism, acculturation, or assimilation? (Ovando & Collier, 1998, pp. 141-145).
b. Describe two ways in which a teacher can provide and maintain a positive deaf cultural identity for his/her deaf students.

The bilingual approach also included incorporating a second culture and its values into the classroom. Teachers learned about the three processes, which explain the development of cultural identity. To be bicultural is when the person can handle two cultures effectively simultaneously. Acculturation is the process by which a person takes parts of one cultural group and blends them with another culture to create a new cultural pattern. Assimilation is the process of adopting the ways of a new culture and leaving the first cultural identity behind. Teachers had different opinions about how this notion of being bicultural related to deaf students.

> Our goal for young deaf children is for them to be bicultural which would mean that they could handle the "hearing and deaf" culture simultaneously…however, in reality, I think the dominant process in the classroom is probably closer to acculturation.

> Being that many of our children…arrive in early elementary or middle school and are from hearing families, I would have to agree that children assimilate the culture of deafness as they learn from their peers, role models, etc.

Teachers suggested lots of ways that other teachers could develop a positive deaf cultural identity with their students. Teachers stressed the importance of having deaf role models; teachers recommended students read about famous deaf persons in history. Teachers also suggested that deaf students be informed about deafness and assistive

devices. Other teachers mentioned the teaching of problem-solving skills, the wearing of T-shirts with the manual alphabet on them, having books with signs in the classroom, inviting deaf speakers, displaying the manual alphabet on the board, and the teaching of formal Deaf studies courses.

> I have been teaching those children about the appropriate way to get attention from children or adults. I always remind them to tap easily on my shoulder or arm if I am seated down or my thigh if I stand or wave to me to get attention. I keep on telling them not to hit hard on my hip or back several times. They learned to follow what we adults taught, but they forget sometimes.
>
> As a deaf person, I am not very comfortable discussing about the 'Deaf culture' due to so many misunderstandings and inappropriate information such as deaf people don't say please or thank you. It's behavior that sets us apart from the general population. I use lot of body contact to get students' attention, eyes to maintain the contact with students, and devices to get their attention (flashing lights, tapping on the table). Being fluent in ASL is one of the important aspects of teachers' abilities.

Reflective Log Question #13

a. Audism is a form of ethnocentrism. Based on your experiences, describe an example of audism. Hearization is an example of assimilation. Based on your experiences, describe an example of this.
b. Reading and discussing audism/hearization helps us better understand and deal with prejudice and discrimination. How do we address this issue with parents and other professional peers?

Teachers discussed attitudes of hearing people toward deaf persons.

> Audism is any attitude, belief, behavior or institutional arrangement that favors the hearing group over the Deaf group…for many years, the educational system was arranged so that the decision making process had little or no input from deaf people. The "Deaf President Now" movement helped to raise awareness about the rights of the deaf to have more control in the decision making process.
>
> Hearization is the process in which deaf children are forced to imitate English speech, hearing language behaviors, preferences, expectations, values, perspectives, ethos through the use of spoken or manually coded English. This was certainly the focus when I took graduate school classes twenty-five years ago.

> Hearization has large influence in my deaf grandfather…He sometimes said that the deaf people who can talk are smart ones. The way he described them made me accept the idea that deaf people who can talk are the luckiest ones on the earth. When I got older, I realized that his ideas were not true. Going to college has helped me to acknowledge that good speech skills do not mean the person will have a successful life. I have met so many deaf people with no speech skills.
>
> I have seen audism with some staff…forcing a deaf child to wear his hearing aids…I have watched the child protesting against staff by signing "no, no" and physically pushing the staff's hands away. The staff ignored him and forced the hearing aids into his ears. When the staff left, the child immediately took off his hearing aids.
>
> Audism is not something I have seen in my Early Childhood program. Even with the speech therapist, they do not demand the students wear their hearing aids all day long where there is no spoken English in the classroom environment. When the students are scheduled to go to speech therapy, they are encouraged to wear their hearing aids. If not, it's okay.
>
> We had a good hearing teacher who taught us in many ways except one thing. He hated our facial expressions while we conversed in ASL with our classmates. He could sign well in straight English and always told us that ASL facial expressions belonged to wild animals and we really did not belong in school and should be sent to the jungle. He forced us to stop using facial expressions in the class or made us stay after school…we felt humiliated and thought to be labeled as failures because we struggled trying our best to please him but the effort was worthless.

One deaf teacher gave some sad language learning experiences.

> I went to an oral preschool…my teachers couldn't get me to stop signing…I got spanked a lot for using signing in the classroom. It was difficult for me not to use ASL because I have many deaf members in both of my parents' families.

Teachers continued to discuss how to address the issue of using ASL in the classroom with hearing parents. Teachers commented that this was not always easy. Teachers suggested to parents that they visit the class to see how ASL is used to build English skills. Teachers also mentioned that they needed to advocate for and promote

ASL and to explain to parents that ASL has been recognized as a language. Teachers also suggested that parents meet deaf adults and go to family camps where they can interact with deaf adults.

> I would state (to parents) that the state of Kansas recognized that ASL was accepted as a foreign language.
>
> I think the best way is to have parents and professionals meet and talk with normal deaf adults from a variety of backgrounds. The basis for audism/hearization is most likely ignorance and fear. Most parents do not know any deaf people.

Reflective Log Question #14

a. Ovando and Collier (1998) defined "hidden curriculum" as the concealed norms, values, and beliefs of the school culture and social system that can hinder or promote children's cognitive, linguistic, and social development. Hoffmeister (1996) described examples of this that exist in special education training. Describe an example of "hidden curriculum" that exists in your school.
b. After completing the chart during a seminar on how culture influences language use patterns in the classroom, describe how you implemented these patterns with your students during a group discussion.

Here are teachers' comments about the "hidden curriculum."

> I can honestly say that I had never really thought about "hidden curriculum"…as a hearing person that has never had the experience of being part of the Deaf community, I am not sure that I am a good judge of what is or is not "hidden" for Deaf students…one issue that could be called "hidden curriculum" is the lack of adequate training and or inservice training concerning the norms, values, and beliefs of the Deaf culture and social system for hearing staff and hearing parents.
>
> I remember in graduate school a lot of focus was put on where deaf children were weak. Among the areas included language, speech, and social skills.
>
> I remembered when the "Deaf President Now" movement raised the consciousness of all of us.
>
> My school has taken steps to balance the curriculum…we have a Visual Listening Assessment that is used to collect data on student ASL skills. Deaf Studies is a required course in elementary and high school…our superintendent recognizes and supports the acquisition of ASL as the base

> for most deaf children…our early childhood program has a ratio of 2 to 1 (deaf to hearing) teachers.

Mentor-teachers and teachers then made a list of how each culture (deaf and hearing) uses ways to get and maintain attention, to take turns, and to ask questions. These are categories under the pragmatics of language or how language is used.

Table 9: Mentor-teachers' and teachers' responses to how you can develop an awareness of culturally influenced patterns of language use.

Language Use Pattern	Deaf Culture	Hearing Culture
Ways to get attention	• Shoulder tap • Light switch • Pound on table or floor	• Shouting • Whistling • Clearing throat • Making noise (knock, bang, tap, etc.)
Ways to maintain attention	• Eye contact • Ask questions • Facial expressions • Feedback cues	• Voice inflection • Ask questions • Ask for responses • Stop talking
Turn Taking	• Stop signing • One-on-one or group eye contact	• Voice inflection (especially at the end of sentences) • Questioning • Pausing
Questions patterns	• Eye brow movement • Head tilt • Lean torso	• Wh-questions • Polite questions (would you, could you, couldn't you) • How—how are you?

Reflective Log Questions #15

1. Steven Krashen (1995) and William Stokoe (1974-75) supported the use of primary language (ASL) for instruction. Freeman & Freeman (1998) stated "allow students to respond in their primary languages to demonstrate comprehension of content taught in English." Describe how and when a teacher can provide opportunities for students to respond and demonstrate comprehension in ASL only? In English only?
2. Steven Krashen stated that reading in the primary language is critical. How do we provide this opportunity when ASL does not have a written form yet?

Teachers continued to discuss how they could provide more ASL and English learning opportunities in the classroom. Here are some teachers' comments.

> To ask questions in ASL over material read in English. For example, a literature story or a Weekly Reader can be read silently by the students. The story can be re-told by the students in ASL. Comprehension questions can be asked in ASL too. This can also be done when students

> are using the Internet to find information about a specific topic…the information is presented over the Internet in English. After finishing this research, students can share what they learned by reporting in ASL.
>
> I use whole to part in ASL approach to help students to understand what they were supposed to do with their class assignments. I find the whole and part in ASL very helpful for the students to respond and demonstrate comprehension in their class assignments.

Teachers then reflected and wrote on how they could provide opportunities for deaf students to "read" in ASL when ASL does not have a written form.

> Since ASL does not have a written form we are forced to use the written form of the second language…I use ASL to clarify written English…all other foreign languages have the same language for both spoken and written forms. With ASL we must pair the visual aspects of the language with written English. For the elementary students, this is an all day, everyday task in order to teach both ASL and English.
>
> For my third graders, telling the stories in ASL, then reading them in English and summarizing them in ASL seems to be an effective strategy…we also use the ASL Visual Storyreading tape[18] to preview and review some of the stories we study.

Reflective Log Question #16

1. Livingston (1997) proposed that the use of language is critical in developing competence. Explain three ways that you can provide opportunities for students to communicate with each other during instructional time.
2. Livingston (1997) emphasized the importance of the creating of literary works in ASL. Using your current classroom theme or unit, describe an ASL literary work that you students can create

Here are teachers' comments on how they could provide opportunities for their students to practice their language skills.

> I provide time for the students to communicate with each other in both structured and unstructured situations…each morning the students have "free time" together when they have finished their daily journal writing…this time is usually spent in the classroom library area where they are doing shared reading or just talking together…turn taking during discussions (all academic areas) and working together in pairs or small groups provide more opportunities for the student to communicate with

[18] Visual storyreading tapes are ASL translations of commercial children's books by Deaf ASL storytellers. Available from Kansas School for the Deaf (913-791-0573 voice/TTY).

> each other....I do try to do a lot of "questioning" of my students when we are together in a large group to encourage participation and to model communicating with a group.
>
> Providing opportunities for students to communicate with each other during instructional time is to allow them to share their work with each other...during writing time, students can brainstorm ideas together then work on their prewriting and rough draft individually...communicate with each other...to work collaboratively on a project...to allow them to dramatize a story they have studied during class.

Teachers then discussed ways they helped their deaf students create literary lesson in ASL.

> In our study of folktales, the students have read several different versions of the kind sister/mean sister story from different cultures. They can make up another version using deaf characters and telling the story in ASL.
>
> I encourage the kindergarten class to develop number story (0-10) signing, first, second and third grade class develop their number story (0-15). The 4th and 5th grade classes develop individual stories in ABC's story as I called it Aphanasy (word came from a book called "More Definitions by Ken Glickman). For the 6th grade class, they do their toughest assignments in ASL Poetry. Overall they enjoy this unit because they love to play with the language and it helps their self-esteem.

Reflective Log Question #17

b) Why is language allocation an important consideration in bilingual classrooms?
c) Using Figure 1: Subcategories of language distribution patterns in Jacobson (1990, p. 8), describe a classroom activity in which you used language separation from ASL or English. Include what you did, how the students responded, and why you selected this method.

Language distribution refers to the allocation patterns of the languages involved (Jacobson, 1990). Related to deaf education, we ask the percentage of time the teacher should be using ASL and the percentage of time the teacher should be using English. Researchers on bilingual education say languages can be separated on the basis of four criteria—topic, person, time, and place—and that a range of options exists for the bilingual teacher (Baker, 1996; Jacobson, 1990). Language allocation can also be controlled through curriculum materials (Baker, 1996) (e.g., using ASL videotapes) and

through types of bilingual education programming (maintenance, transition, immersion etc.) (Baker, 1996; Crawford, 1997; Hakatu, 1986).[19]

Here are teachers' comments on language distribution patterns.

> Language allocation is an important consideration in bilingual classrooms due to several reasons. ASL and English are not the same language. English is a phonetic language while ASL is a visual language. Therefore, both languages cannot be mixed together. It is like if a person is speaking Chinese and Spanish languages at the same time, no one will be able to understand the person. ASL has its own grammar rules like any other language.

> Language allocation is important because teachers need to have a clear idea of what language patterns they are using and more important why they are using particular language patterns.

After studying Jacobson's (1990) bilingual strategies, teachers commented on how they used these strategies in their classroom.[20]

> I feel that I use a variety of language distribution patterns throughout the day, and more specifically through a lesson…though ASL storytelling…Content, time, person and place are part of the storytelling activity because the story is from a basel reader (content), it is "story day," (time). The storyteller is my deaf para (person) and we are in the storytelling area of the classroom (place). I use Immersion, flip-flopping and concurrent translation and the preview-review method as I introduce the story and set up background information. These patterns are used again after the storytelling session as the students review the story and answer comprehension questions about the story. Next the students are given written questions that they independently write answers (submersion). Why do I use these language patterns? My goal is for students to comprehend and because they have a variety of language skills I feel that a variety of patterns must be used.

> I selected the New Concurrent Approach strategy to present a social studies lesson on diabetes from the Weekly Reader…First, I showed the kids the Weekly Reader. Together we read the headline and talked about (in ASL) what they knew about diabetes. Next, they read the first

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[19] We elaborate on the bilingual research related to language distribution and allocation on pages 53-55 of the Year 1 report: Critical Pedagogy in Deaf Education: Bilingual Methodology & Staff Development: Year 1 (www.starschools.org)

[20] See KSD mentor-teacher Nancy Eades' definitions of Jacobson's (1990) bilingual strategies in Appendix F: Teacher Ideas: "From the desk of…Nancy Eades"

> paragraph and we discussed it in ASL…we continued for the rest of the article…Next, we read a follow-up article on kids who have diabetes. The students read the article then we discussed it in ASL…We referred back to the English text to clarify concepts that were not clear before the ASL discussion. The students responded better to reading the whole article then discussing it in ASL then reading it paragraph by paragraph. At the end of the lesson, each person shared one thing they learned about sugar diabetes.

Reflective Log Question #18

1. What criteria do you use to make decisions about the allocation of ASL and English in your classroom?
2. Using Figure 1: Subcategories of language distribution patterns in Jacobson (1990, p. 8), describe a classroom activity in which you used both ASL and English in your lesson (Preview/View/Review, Concurrent Translation, New Concurrent Translation). Include what you did, how the students responded, and why you selected this method.

One teacher commented that language allocation was dependent on the child's language background; another teacher said it was dependent on the child's age. And still another teacher commented she used ASL on a daily basis and introduced children (four year olds) to print and provided her students with a print enriched environment. When beginning a new topic, another teacher said she used ASL, then worked in English, and then reviewed the topic in ASL. Testing was done primarily in English, commented one teacher. Another teacher said it was important to clarify topics in ASL. And still other teachers said that it was important for the students to have the necessary background experiences to have a "base" for understanding the concepts in the lesson. She went on to say that after she determined the students' background knowledge, then she decided how she would introduce the lesson and what language mode she would use. This teacher previewed a lesson in ASL, then viewed the lesson in English by placing the English print version of the story on transparency. The teacher went on to say she used a concurrent translation approach, then finished the lesson by reviewing the topic in ASL.

Another teacher mentioned she took into account hearing loss, other physical disabilities, and language backgrounds before deciding which language to use with her lessons.

Here are some teachers' comments.

> First we talked about what we knew about farms (..via ASL) why farms are important, what you would expect to find on a farm, what farm states are like etc. Next I used pictures from a book to introduce various types of farms. We made a web of types of farms…I filled in the web on the board…we focused on dairy farms…students learned words in English (stanchion, dairy, skim, udder, etc) and practiced spelling the words….after the milking demonstration we discussed in ASL what we learned…we used English to write thank you letters to the people who brought the cow…a nice mix of "talk" and "write" about it.

One teacher reported he used a "submersion" method.[21]

> Fourth grade had a hard time remembering their home addresses…we role played…by letting one of my students act as the "lost" child downtown…while I acted like a policeman (who knew no sign language with the exception of natural gestures)...the lost child had a hard time writing his address down for me to bring him to his parents' home...after the drama I urged them to remember their home address...to accept their responsibility.

In another class, this teacher used a concurrent translation approach.

> Unit on Deaf history…I had all timelines on transparencies for the class to see (in English) on overhead projector…I explain each in ASL so the students can learn the historical information with both languages at the same moment.

Another preschool teacher uses ASL exclusively with her four-year-olds during storysigning, but the teacher will change to concurrent translation when she is pointing out specific words.

Reflective Log Question #19

1. What factors are necessary to determine realistic spoken English expectations for a deaf child? How is this information shared effectively with parents?
2. How do we effectively use speech therapists to support students who have spoken English potential?

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[21] Submersion is a type or form of bilingual education in which students are taught in the "majority language" and are left to "sink or swim" (fail or succeed) (Baker & Jones, 1998; Richards et al., 1985).

Teachers read an article which listed the factors that enable a deaf child to learn how to speak. Amount of residual hearing, benefit of amplification, consistency of hearing aid use, language competency, family support, intelligence, and attitude are variables that were listed in one article related to speech and deaf children (Graney, 1997). Teachers also discussed the speech learning potential of hard-of-hearing children. Finally, teachers discussed how they could communicate this information about speech development to parents.

> The speech therapist and teacher can communicate on a daily basis on the stories being told in ASL… speech therapist...can use it during speech time with the children.
>
> I have met a few deaf people who speak English well, but they do not write English well…often assumed that if a deaf person can speak, therefore he/she writes English fluently.
>
> We need to use the resources and the information that the speech therapist provides coupled with teacher and parent observation to understand where each child is currently functioning…I think some of the frustration for children in the past has been when we have set expectations that were beyond a child's real potential…working as a team, the parents, child, teacher, and speech therapist can maximize the development of appropriate spoken English skills.
>
> In the past lot of Deaf students (now adults) hated speech programs…I also explain about my bad experiences with speech teachers when I was young at the oral residential school…I usually encourage each Deaf student to take speech…to find their potential…also I share the facts that many intelligent Deaf and hard of hearing students do not develop spoken English skills, despite intense effort.

Reflective Log Question #20

1. Are your deaf students considered EFL (English as a foreign language) learners or ESL (English as a second language) learners. Provide reasons for your opinions.
2. Assessing bilingual learners is a complex process. What defines academic success for your students? How do you currently document this growth?

Most teachers reported that their students were ESL learners rather than EFL

Because they were born in the U.S.

> I consider my deaf preschoolers as ESL learners due to several reasons. ASL is their primary language. They communicate in ASL on a daily basis. They depend on ASL to comprehend new concepts. I provide them with new information via ASL. English is considered as their second language since they are demonstrating early growths in literacy…using storybooks twice or more a day, the students are being exposed to printed words by watching me reading and pointing out the printed words and signing out the printed words.

Teachers gave many ways in which they assessed their bilingual students in both ASL and English—a topic we discuss more fully in Section 5 of this report.

KSD teachers suggested ASL development checklists, cultural behavioral checklists, reading development checklists, checklists for emerging readers, writing samples as part of portfolio assessment, paper and pencil tests, group projects, individual reports/presentations, journals, written papers, webs and drafts of final papers, videos of the children, chapter math tests, and lists of various skills in curriculum used at the school.

One teacher who worked with deaf children with additional disabilities highlighted the difficulty in assessing her deaf bilingual children.

> Having a group of children "labeled first grade" with an age range of 6 to almost 10 has been more of a challenge…five of the six have vision problems in addition to deafness…conditions such as ADHD, emotional problems due to early family problems, slight autism, possible mental retardation, eating disorders, shunts in the head, CP involvement, and other additional factors.

Summary of Teacher Comments

During the Fall of 1998, KSD teachers read, reflected on, wrote about, and discussed theories of bilingualism, first and second language learning, and current methods of literacy instruction. Teachers began to conceptualize their deaf students as "deaf bilinguals"—that is, students who were using and learning two languages—ASL and English. Teachers also studied different types of bilingual education programs such as the 90%-10% model where most of the day, the teacher uses the L1 of the student and then switches to the use of the children's L2 or second language. Further, teachers discussed how they incorporated the whole language philosophy by explaining texts, concepts, lessons in ASL and then moving to explanations using English. Teachers also recognized how what they thought about second language acquisition (e.g., that is easier for younger students, that English should be taught using English only) changed as they read articles which explained these myths. Teachers also gave sample lessons in ASL and English and explained how they used different bilingual strategies. Teachers cataloged numerous examples of how they encouraged their students to use ASL (ASL storytelling, storysigning, deaf visitors, ASL videotapes) and how they encouraged them to use English (email, writing notes, writing in dialogue journals, setting up a writing center in the classroom). Teachers also analyzed how they allocated and separated ASL and English with various activities. For instance, class discussions, introduction of new topics, storytelling, storysigning explanations of instructions, and new concepts were typically presented by the teacher using ASL. Activities such as writing lists, personal experience stories, captioning stories, recording news of the day, and writing reports were activities the children typically completed using English.

During the first level, teachers also debated how they could discuss their use of ASL in the classrooms so that parents would understand the bilingual approach. Teachers discussed the fact that many parents often confuse terms such as speech, language, English, ASL, sign systems; most parents need clarification on these issues.

During Level 2 in the Spring of 1999, the KSD teachers continued their seminars. Teachers discussed more ways they used ASL and English in the classroom and gave many examples of classroom activities: making a signed videotape and sending it to French deaf children, English grammar lessons with explanations in ASL, science lessons on hurricanes, social studies lessons on the space program, and so on.

During the second level, teachers began to explore the notion of "biculturalism" and what it means for deaf students. They discussed ways to build a positive identity among deaf students as a deaf person. Teachers also discussed pragmatic behaviors among the Deaf community in contrast to the Hearing community such as using touch, sight, and motion to get attention and maintain conversations. Teachers discussed the "hidden curriculum" in schools that often oppresses and paternalizes the Deaf culture and how these negative attitudes affect deaf children's learning of language. Teachers analyzed Jacobson's (1990) list of bilingual strategies and discussed how they could apply them to the teaching of deaf students during reading lessons, math, social studies, and science. Teachers also began to analyze how they assessed the bilingual deaf child using teacher developed checklists.

Student Outcomes Related to Eight Engaged Learners Variables

To interweave our Deaf project with the other four USDLC projects, we related the eight Engaged Learners Variables with the language behaviors of the deaf students as

reported by the KSD teachers who used the ASL/English Bilingual Staff Development training during Levels 1 and 2. The engaged learner (EL) variables are listed and described on pages 15-16.

EL variable #1: Vision of learning. KSD teachers used a variety of diverse projects in their teaching. Students became responsible for their own learning through doing research projects and report writing. For example, teachers used ASL storytelling, storysigning, ASL sharing time, social studies lessons on deaf dogs and other assistive devices, writing descriptive essays using comic book Spiderman action pictures, setting up a geometry study lab using ASL in the dorm, using PrintShop software to write personal notes, creating unit cooking activities, developing a signed videotape to be sent to French deaf students, using folktales told in ASL and creating their own "Deaf" folktales, using ASL poetry, and developing science lessons on diabetes to name some.

EL Variable #2: Task. KSD teachers used ASL, a language their students understood in order to engage them in conversations. As mentioned above, teachers set up tasks through which the deaf students learned about deaf dogs and other assistive devices—activities that are real-world, relevant, and interesting.

EL Variable #3: Assessment. KSD developed checklists to measure their deaf bilingual students' abilities in ASL and in English. Students also completed research projects which was another way for teachers to assess their progress using higher-level thinking and problem-solving skills. One deaf KSD teacher developed an innovative assessment measure. He had the children role play getting lost and having to interact with a policeman who knew no sign. The students had to use written English to provide

their names and addresses. Such a "real-life" task motivated his students to learn English.

EL Variable #4: Instructional Model. KSD teachers reported they introduced new topics and held class discussions with their students using ASL to assess students' background knowledge. The ASL/English Bilingual Model is based on the notion of using ASL to teach English.

EL variable #5: Learning Context. KSD teachers created a learning context by incorporating aspects of the Deaf culture in their classroom. For instance, they invited other deaf adults to class, displayed pictures of ASL signs and fingerspelling in the classroom, and taught Deaf studies classes in which students read about important deaf persons. Further, teachers discussed with their deaf students the different pragmatic behaviors that the Deaf community and the Hearing community use, such as touch, vision, and motion to get attention, to interrupt, and to maintain and close conversations. All of these activities helped create a more comfortable language and cultural learning environment for deaf students.

EL Variable #6: Grouping. KSD teachers reported they used cooperative learning projects. Students came from diverse backgrounds with diverse hearing losses, and etiologies, and some had additional disabilities (vision, motor, learning).

EL Variable #7: Teachers' Role. KSD teachers reported they guided their students through the language learning lessons using ASL and then taught English as a second language.

EL Variable #8: Students' Role. KSD teachers reported that through the various language learning activities (ASL storytelling, ASL story retelling, reading of

printed English, writing of English, etc.), students explored how meaning can be produced in the two languages—ASL and English. By studying the pragmatic ways of both cultures—hearing and deaf—students learned how to be better communicators depending on the audience. By producing written reports, captioning pictures and projects, composing and sending email, and research ideas on the Web, students learned that they could become knowledge producers, just as their teachers.

Section 4: Findings: Teacher Reflective logs from Level 3 and Level 4 from NMSD and TSD.

Similar to our work at the Kansas School (KSD), we used critical pedagogy, reflective teaching and action research techniques to deliver the ASL/English Bilingual Staff Development Model to teachers at the New Mexico (NMSD) and the Texas School for the Deaf (TSD). Recall also that this was the second year of training for NMSD and TSD.

In this section, we highlighted NMSD and TSD teachers' comments from Levels 3 and 4. In general, Levels 3 and 4 of the ASL/English Bilingual Staff Development Model focused on bilingual strategies, methodologies, and methods of assessment and differed from Levels 1 and 2 which focused on bilingual, first and second language theories. Levels 3 and 4 also contained more opportunities for teachers to develop case studies and classroom vignettes of how deaf children learn through two languages as well as to experiment with ways to evaluate the ASL and English literacy skills of deaf students.

Level 3: New Mexico (NMSD) and Texas (TSD) Schools for the Deaf: Fall 1998.

Reflective Log Question #1:

1. Using Faltis and Hudelson's (1998) list of bilingual and ESL programs, briefly describe which approach is most appropriate for your present class. Why?
2. Using Figure 1: Subcategories of language distribution patterns in Jacobson (1990), select one concurrent method to try in your classroom. Describe what you did, how your students responded, and why you selected this method.

Teachers read about the variety of bilingual programs for hearing children. They learned these programs may include *structured immersion programs* in which the majority language dominates or *transitional programs* which start with the home language and then switch language methods to the majority language in three to five years. They also studied programs such as the *maintenance/heritage language program*, which aims for students to become bilingual with an emphasis on the students' first language (L1). Other types of bilingual programs teachers studied included *two-way/dual language* or *enrichment programs* which mix both the languages of the majority and minority populations (Baker & Jones, 1998; Baker, 1996; Faltis & Hudelson, 1998).

The project teachers at NMSD and TSD analyzed the descriptions of these bilingual program types and discussed which type would be appropriate for deaf students. Most teachers reported that the maintenance approach was most appropriate (n = 10), followed by enrichment programs (n = 5), followed by both enrichment and maintenance (n = 1).

Here are three teachers' comments on bilingual program types.

> My educational goal is for both languages, ASL and English to be recognized as having equal importance…up until last year, I believed that the L1—ASL was a means to get to the L2. Now I believe that both languages need to be developed, learned, used together…so that would mean the Maintenance bilingual educational model would be the model I am using now.

Another teacher commented on how she changed her thinking about what deaf children need in terms of bilingual program types.

> In my past experiences, I was primarily exposed to transitional/ESL types of program where English proficiency was the only goal. ASL was devalued in that it was prohibited and only English type signs were allowed…I feel we have established a maintenance type program…it values both the L1 and L2.

And still another teacher addressed this issue with her hard of hearing students. She believed that a bilingual approach was necessary for them, and this is why.

> I debated on the Enrichment approach because we have two hard of hearing students in our class. One uses primarily spoken English…English is his L1…my decision to select the maintenance approach…is based on the fact that, although this one student may be considered that English is his L1, spoken English is not fully accessible to him because of his hearing loss and he is not fluent in written English.

In the second part of the first reflective log questions, teachers were asked to comment on how they used the concurrent method—a bilingual strategy that uses both languages at the same time in teaching a lesson. For instance, using concurrent translation, a teacher may sign a story from a book in ASL, then show the printed English of the story on an overhead transparency.

All 15 teachers reported using some form of concurrent translation in their classes with reading and writing and during snack time. For example, teachers would have their students brainstorm ideas for research papers with each other using ASL, then write their ideas in English print or do the reverse—write a paper in English, then give a report on their papers to the class in ASL. Another approach teachers reported their students using was for them to read printed English texts silently, then have a class discussion in ASL. One teacher reported she put up an overhead transparency of a paragraph of a novel in English, but then the teacher would go over each sentence and translate its meaning into

ASL. And still another teacher suggested this idea. She would have her students contribute ideas in ASL, then the teacher would write the ideas in English on the blackboard, then the teacher would go over the ideas using ASL. One preschool teacher reported she would ask the children what snacks they wanted in ASL, the teacher would write the equivalent ASL concept in English (e.g., cracker, peanut butter, juice).

But the distribution of languages (ASL and English) was not always 50-50. In fact, the teachers reported they gauged how much ASL to use depending on the language level of the students and the purpose of the lesson. For example, for young preschool children who are still acquiring a strong L1, teachers would use more ASL with some support in printed English. For older students, if the teacher was discussing abstract ideas from a novel or textbook, she would use ASL when introducing the work, but then the teacher would increasingly use English as her students read and wrote about the new ideas.

One teacher reported that the concurrent translation method provides a "buffer" or a comfort zone for the students.

> The one pattern I seemed to use the most was the concurrent translation approach. The reason for that goes back to my value for the two languages and so my students could make better connections between both...Using ASL in the classroom created a buffer for them when they were struggling with English. Plus using English in conjunction with ASL created a comfort zone for developing English skills.

Another teacher suggested using the two languages in authentic situations helped students understand the meaning of the passage.

> During snack time, students…expressed their wants through ASL. After they sign, for example, 'cracker,' 'peanut butter,' the teacher writes in English, 'cracker,' 'peanut butter,' to present an authentic situation in English and in ASL representation that the students understand.

And still another teacher reported that the concurrent translation method resulted in her students having a more detailed class discussion.

> I used the overhead projector for reading having a page printed from a book…I asked the students to read the page quietly...I asked them to explain what they had read…most were unable to do this…they began to read word for word…I asked them to look at the picture for a clue…we discussed the picture…we went back to the print and they read quietly…we read it as a group…their discussion had more detail.

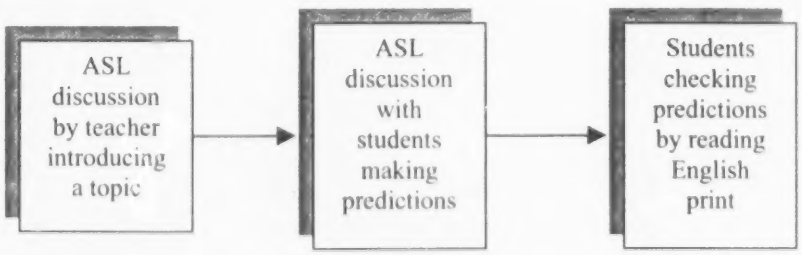
Reflective Log Question #2:

1. Develop your own vignette by describing what happens in your classroom for a block of time or an activity.
2. After describing your vignette, identify which language learning principles you applied in your classroom by typing them in boldface and in parentheses as illustrated in the discussion sections of Chapter 5. Use the following principles: Language is socially shared, language is socially constructed, language and literacy are intertwined, meaningful content is central in language learning, and L1 proficiency contributes to learning and L2 development.

For this reflective log question, teachers developed their own vignette of what happens in the classroom during a language activity. Teachers also related their activity to a language learning principle: (1) language is socially shared, (2) language is socially constructed, (3) language and literacy are intertwined, (4) meaningful content is central to language learning, and (5) L1 proficiency contributes to learning and L2 development (Faltis & Hudelson, 1998).

In most of the vignettes, teachers discussed how they began their lessons with ASL discussions about ideas, led the class into a discussion to predict what they would find in their reading, and then led the child into reading or writing print (see Figure 3).

Figure 3: Language lessons


ASL discussion by teacher introducing a topic
ASL discussion with students making predictions
Students checking predictions by reading English print

Teachers described activities such as writing workshop classes, cooking class, math, reading, vocabulary, and science lessons and discussed what happened in their classroom according to the five language principles noted in the reflective log question.

> Here is an example of a teacher reading a book to her preschool class. In my preschool class, I use ASL to tell the Rainbow Fish story to my students (Language principle: Language is socially shared). I fingerspell some key words such as fish, rainbow, blue, and sea (Language principle: L1 contributes to learning and L2 development). I sign then fingerspell the sign afterwards for words mentioned above. The story shared with my students is heavily focused on ASL..I draw pictures to match the words so it will give preschool students a better picture of the meaning of words…(Language principle: meaningful content is central to language learning). After the storytelling is complete, I will sign WHERE FISH LIVE. ..then I will fingerspell F-I-S-H and the students may sign WATER (Language principle: language and literacy are intertwined).

Another teacher related a lesson on oceans to the language learning principle--language and literacy are intertwined. She led the class in a discussion in ASL about oceans. She related her discussion to corresponding print on butcher paper and on an overhead transparency with words about oceans. The students then wrote sentences about oceans in their written logs along with labeling a drawing of ocean parts in English print.

The teacher then followed the language principle--language is socially constructed—by having students discuss oceans using ASL and printed English.

> Thematic unit on oceans…students make a model…first a discussion in ASL takes place...students share their experiences and ideas…in a learning log…students draw what an ocean floor looks like adding English labels, captions, or phrases to the pictures...the teacher will cover one model with saran wrap and fill with water...students will look at an overhead transparency of the ocean floor and its features…the overhead is labeled with English vocabulary…students discuss vocabulary and draw on large butcher paper…labeling them with appropriate English terms…students refer back to their original questions, "what does the ocean floor look like?

Reflective Log Question #3:

1. Using a bilingual framework for deaf children (Nover et al.,1998), describe how you implement signacy, literacy, and oracy abilities into your classroom activities.

Teachers studied the ASL/English Bilingual framework (see Table 1), then described how they used ASL, reading, writing and spoken English in class. This question related to the issue of language distribution—that is, how much time did the teacher spend in using the two languages—ASL and English—each day in the classroom.

As mentioned in Section 3, an important part of any bilingual program is language allocation. Jacobson (1990) reported that the amount and type of language used by the teacher depend on the language level of the student and the purpose of the lesson.

In Year 1 of the project, we asked teachers to reflect on the notion of language allocation and to report the percentage of time they spent using each language (signing, speech, fingerspelling, reading, writing, and listening). We also asked teachers to reflect on which classroom activities they used with ASL and which ones with English. This exercise helped teachers to become aware of how much, in what classes, and when they used each language. In Year 2, we asked the teachers to continue the language allocation discussion and to identify additional specific activities when they used each language (see Table 10).

Teachers reflected on what language they used with each activity. Some teachers reported they used ASL skills during calendar time, storytelling, health class, math, when students are working at their writing centers, during spelling class, circle time and when discussing current events. Others reported they used English literacy skills during reading and writing activities and also included fingerspelling and fingerreading activities. Oracy or speech, listening, and lipreading skills, teachers reported, were used

mainly with hard-of-hearing students who listened to audiotaped stories, participated in lipreading and speaking when learning new vocabulary words, or when hard-of-hearing students talked one-on-one with the teacher.

Table 10: Distribution of language type by classroom activity

	Activity Choose a weekly "routine activity"	**Signacy (ASL) watching/attending, signing**	**Literacy (English) fingerreading, fingerpellling, typing**	**Oracy (English) speaking, listening**
1	Spelling	Watching explanations, relating experiences, signing, spelling words, finding words to match handshapes	Fingerpelling, fingerreading, using words in sentences; adding prefixes, suffixes; codeswitching; reading word/sign	Lipreading, listening, speaking words
2	Social Studies	Discussion of topics, asking, answering questions	Fingerspelling vocabulary; reading in a textbook; fingerreading names, places; new names	
3	Morning news	Sharing news, asking/answering questions	Fingerspelling, fingerreading (names, places), reading journal responses	
4	Science experiment	Discussion of topics, asking/answering questions, making predictions, problem solving in cooperative groups	Recording (writing) data from the experiment; fingerspelling; fingerreading; reading worksheets, directions, and questions	
5	Math game	Watching directions, asking/answering questions, communication among partners	Reading, card games, board games, fingerspelling, fingerreading	

Two teachers mentioned they used simultaneous communication with their hard-of-hearing students. One teacher reported her hard of hearing student lip-read when she modeled the reading of a story for him. And three teachers reported that students used

speech, speechreading, and listening skills when they practiced their new vocabulary words with the speech teacher.

Reflective Log Question #4:

b) Fingerspelling/fingerreading may be seen as an integral component of literacy development. In Padden and Ramsey (1998), two fingerspelling methods are described. "Chaining" forms a relationship between sign, printed word, and the fingerspelled word. "Sandwiching" is signing, fingerspelling, and pointing, then signing again. It is important to provide students with guided practice opportunities in the use of fingerspelling/fingerreading. In your classroom this week, describe an activity when you used the above methods. Include what you did, how the students responded, and whether you believe this is an effective method. State a reason for your opinion.

Fingerspelling is an important part of literacy development (Padden & Ramsey, 1998). Deaf teachers use fingerspelling in the classroom more frequently than hearing teachers because deaf teachers use fingerspelling in their everyday lives. From our classroom observations in public schools, we have seen hearing teachers in the mainstream use fingerspelling even less frequently than hearing teachers in residential schools.[1]

Tommie Brasel, lead mentor teacher at the NMSD, summarized her teachers' use of fingerspelling. Brasel reported that the more teachers used fingerspelling, the more the students will use fingerspelling. Further, Brasel said that the young students will babble in fingerspelling and attempt to copy fingerspelling if it is paired with signs in unit themes. When teachers sign the words and then follow up with the fingerspelling of the English equivalent and do this frequently, children will naturally acquire the words using fingerspelling.

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[22]One of the authors of this report had worked with a mainstreamed teacher in the fifth grade who assumed that fifth graders (age 10) were too young to understand concepts that were fingerspelled to them by the teacher. But other researchers have shown that young deaf children as young as three years old can understand and use fingerspelling (Quigley, 1966).

Other teachers reported their students started to use more fingerspelling in their conversations with each other after they observed teachers using fingerspelling with them. Teachers reported their students enjoyed practicing fingerspelling on their own, fingerspelling without looking at the word, and fingerspelling prefixes and suffixes. Teachers also reported that fingerspelling helped their students learn specialized words such as space shuttle, or the difference between suspicions/suspects/suspicious. Brasel also reported that print became less mysterious to students when they attached the print to something they already knew—the fingerspelled handshapes.

Other teachers reported they integrated fingerspelling in almost every lesson.

> My class planted radishes this week. When I was handing out seeds to the students to put in the soil, I fingerspelled the word, 'radish,' pointed to the print on the seed packet, pointed to the picture, and then I spelled it again…all the students looked closely at the word, the picture and the fingerspelling..some attempted to copy the fingerspelling...some touched the words on the packet…one student pointed to the R handshape and signed, 'mine.' Her name began with R.

One teacher reported that her younger students took longer to acquire expressive fingerspelling. She reported she had to wait for her students to acquire fingerspelling receptively before she could expect the students to use it expressively. This finding is similar to other studies of deaf infants playing with manual letters by fingerbabbling (Akamatsu, 1982; Padden, 1991; Padden & LeMaster, 1985). Here is what this teacher reported.

> However, the more I used this technique (fingerspelling), the more they responded to it…they attempted to copy the fingerspelling more often and are beginning to include fingerspelling in their babble.

Fingerspelling, reported one teacher, was a handy way to teach new science vocabulary words.

> We have been teaching a guided reading lesson using an overhead transparency of the newspaper story. The words 'space shuttle' appeared in the title. We signed the term, pointed out the word in print, fingerspelled the words, printed the words…and signed it again.

Another teacher reported that fingerspelling helped her students with writing by providing a bridge to English print.

> I introduced the new concept of tides…through pictures…then I posed the question, "Does water always stay at the same level?"…we discussed the concepts…then I wrote the word 'tide' on the board…then I fingerspelled the word T-I-D-E…students took turns illustrating on the board high and low tides paired with the fingerspelled representation of the concept…the students were able to copy the concepts into learning logs with the appropriate printed word.

Another teacher had made fingerspelling a regular activity in her class.

> My students are paired weekly to practice their favorite words and fingerspelling skills…this also exposes my students to team work and more vocabulary because they are working together, and reading, fingerspelling, and signing new words…each student takes turns signing, fingerspelling, and again signing the words.

Reflective Log Question #5:

1. Using ASL summaries before reading and to summarize after reading is an example of the preview/review method described by Jacobson (1990). Use this method with your class. Describe what you did and how the students responded.
2. Describe how you used ASL to develop the sign to print relationship explicitly in your own classroom activities.

The ASL summary technique is an example of the preview/view/review bilingual teaching method described by Jacobson (1990). Basically, teachers gave a preview of the lesson by summarizing a story or passage from a science, social studies, etc. text in ASL so the students could understand the concept. Then the teacher switched languages and showed a print version of the text so students could view the text in English. Finally, the teacher reviewed what the class had read using ASL. Or, the teacher could start with English (preview), teach the lesson using ASL (view), and then summarize what had been learned in the lesson in ASL (review).

Here is what one teacher reported she did and how her students responded.

> The ASL explanation/discussion helped to make the print more predictable so that they were able to connect their background knowledge with what they knew about English print to find meaning in the text. They saw that there were two different ways to communicate—ASL and English.

Another teacher had concerns that her younger students did not have good attending skills so the teacher was unable to use the preview/view/review technique with them. Two of her students had only been exposed to ASL for one year, so their attention skills were underdeveloped.

Still another teacher expressed concerns about this method with older students because it may give them too much information in their "easier" language.

> My concern with summarizing before the chapter is that I'm not sure if their discussion and work is based on my summary. Did they actually read the chapter for themselves? Something to consider would be to include questions where the answers were not from the summary. Something I plan to try.

Here is another teacher's report of her variation on the preview/view/review technique.

> Include telling the story in ASL before they saw the video, including the most important concepts of the story. Then, we would watch the episode with the English captions. Then we would wrap up the lesson with review questions posed in ASL.

And this is how her students responded.

> We were pleasantly surprised at the reaction…the kids pointed out aspects we had mentioned in the ASL explanation and noticed more details that we had not mentioned…they were more responsive when we asked them to review the questions in ASL. Their answers were more lengthy, with details showing their observations.

In general, the teachers reported that the ASL summaries or the pre iew/view/review bilingual technique helped them to provide their students with more

support for comprehension, an increase in background knowledge, and a reduction of confusion and frustration of the students when they are reading and writing.

Regarding the second part of the reflective log question on teachers making the sign to print connection more explicit, we encourage readers to read Tommie Brasel's summary in Appendix F. Also, we give below one teacher's response on the sign to print connection issue.

> When using overhead transparencies or the students' reading from a book, I can show how printed words can relate to one sign or how signs can represent a couple of printed words. For example, "big waves rolling the ship from side to side," is signed with a few smooth, continuous handshapes to explain the concept. I often use the green highlighter to underline many words to show the one action. The passage, "barrels of salted meat and smoked fish and big rounds of cheese had been rolled up the gangplank," will probably have to be discussed in the preview activity with explanations of the concepts of "salted meat and smoked fish," before the story is told.

Reflective Log Question #6

1. How would you educate parents about realistic spoken English expectations for their child?
2. How do we effectively use speech therapists to support students who have spoken English potential?

Recall that in Level 2, KSD teachers began to explore ways they could explain the relationship between speech and ASL to the deaf child's language development. We continued the discussion of this issue in Level 3 with the NMSD and TSD teachers.

One teacher mentioned that parents are often still in the "grieving" stage of accepting their child's deafness.

> When discussing speech development with parents, it is important to remember to be sensitive to the sense of loss the family feels when they learn that their child may never use spoken English to communicate. However, I believe that this sense of loss can be compensated for what they learn that in the Deaf community, spoken English is not necessarily a determiner of success or happiness in life and that their child can grow up to live a fulfilling life even if they don't have spoken English.

Another teacher stressed that parents need explanations about how speech is learned by the deaf child and how difficult speech is for a person who cannot hear comprehensible speech.

> I would first help parents understand that developing spoken language for deaf children is not simply a matter of staring at someone's lips and then repeating spoken words (which is no small feat)…. The visual information that the child receives has to actually have meaning for the child. Otherwise, speech skills are useless. That is why developing cognitive strengths through a visual language can actually support the development of spoken language.

One teacher cautioned the parents to look at the "total" child, not just emphasize what they cannot do (speak and hear).

> It's important for the parent to look at the total child. We need to look at the amount of residual hearing the child has, at how much does amplification benefit the child, at the consistency of the hearing aid, at the family support, the intelligence of the child, most important, I think, the language competency of the child. It is important for the child to have the L1 from which to build the spoken English on. It would be important for parents to understand that using ASL will not take away from the child's ability to use spoken English. In fact, it would benefit the child's ability to use spoken English.
>
> Parents, especially hearing parents often have been asking me if their deaf child will be able to speak or not. It seems to me that their most important question in the world and most of them do not want to hear the answer no…. I always patiently tell them that it depends on many factors…amount of residual hearing, amplification, family support, school support, etc. I also tell them that not all deaf people have the ability to speak and I just happened to be one who can, just like some people have the ability of art, and some don't. It is frustrating for me as a deaf woman and deaf teacher because I do not have simple answers for them.

Another teacher addressed the issue of informing parents about reliable assessment, years of instruction, and self-esteem of the deaf child related to speech training.

> First, to educate parents about realistic expectations for them to learn spoken English, I would inform them that there is no test (no certain

> method) by which to predict how successful their child will be in developing speech…deaf children who have difficulty with spoken English may undergo years and years of speech therapy and still not do well or even feel such low self-esteem about their speech skills that they prefer not to use them.

Another teacher suggested that English grammar instruction could be incorporated in speech instruction.

> I would like to see more grammar incorporated into the speech lessons. It is an important time for students to see the separation between ASL and English, and at the same time, how they can support each other.

Here are the views of two deaf teachers on speech training; they stress the importance of acquiring ASL first, then speech.

> I have seen hearing parents including my parents believe that it is best to learn to speak earlier and once they can learn to speak then they will learn ASL later in life. They claim that learning ASL is easier than learning to speak and why not teach them how to speak first, then sign. I find it difficult to explain to hearing parents and my parents why I disagree, and they have a hard time believing me.

> As a teacher and a deaf person, I would tell parents that not all deaf children could speak. Speech is not a language. It is an ability that a child may have or may not have. Not everyone can draw or sign—This applies to deaf children when it comes to learning to speak. If parents want their child to have good spoken English skills, then I would say that their child will have to acquire her/his first language, which is ASL first…once the child has good ASL skills, she/he will probably have a good understanding of what she/he needs to do in a variety of communication situations. Speechreading and use of environmental print may help the child become familiar with words that are frequently used on a daily basis. If the child has potential to develop good spoken English skills, I think she/he won't have difficulty as long as she/he is fluent in his/her language. It will be much easier for this child than a child with no (language) abilities.

Teachers listed positive ways in which the teacher and the speech teacher could work together. Teachers mentioned that the speech therapist, to be effective, must have good ASL skills and knowledge of Deaf culture. The speech therapists can function as

partners with the teacher in the classroom by tying English to real life, day-to-day situations.

> The therapist can use visuals by signing or fingerspelling a word and/or tactile by putting his/her hand on her throat. The child might imitate these sounds. The situation is less stressful for the children. I feel that the child can acquire good speech skills.
>
> They often lack an understanding of Deaf culture, or don't know how to communicate with them and how to work with them…my students are in age ranges from 5 to 8. Speech therapist often forget how hard it is for deaf children to learn how to speak and their self-esteem is so fragile and delicate.
>
> Teachers can share unit information with the speech therapist such as vocabulary and content. By focusing on concepts that the students have already developed through a visual language, the speech therapist can provide meaningful situations and many opportunities for success.

Level 4: NMSD and TSD (Spring 1999)

During the Spring of 1999, teachers at NMSD and TSD entered Level 4 where they examined notions of culture and assessment, continuing their progress in describing how their deaf students were progressing using the bilingual approach.

Reflective Log question #7:

1. "Culture plays an important role in the development and use of language. The role of culture must be considered in the acquisition and use of language" (Fradd &McGee, 1994, p. 75). Describe two student language use behaviors you have observed that are related to culture.
2. Students must learn to function in both high and low context environments, and teachers can consciously create learning environments that meet the needs of diverse students. Identify a high and low context teaching behavior that you have used in your classroom in the following three categories: personal, instructional, and curriculum related.

The Deaf community primarily uses ASL to communicate with each other. ASL, an important part of Deaf culture, is more than its individual signs and grammatical forms. In its structure, ASL also includes facial expressions and head and body movements, also

known as non-manual signals (NMS) (Bridges & Metzger, 1996). These NMS have been studied by linguists and reported in the literature (Baker & Padden, 1978).

Project teachers discussed and studied how they and their students use these non-manual behaviors such as eye contact and movement of eyebrows, lips, and shoulder. They also discussed attention-getting devices such as tapping on the shoulder, waving their hands, or students rubbing the hands of the teacher if she is looking the other way. Teachers also mentioned improper ways to get attention such as touching the stomach, head or hair.

Here are some teachers' comments on facial expressions.

> The students rely on facial expression. The teacher needs to make a lot of facial expression. For example, a student read a book to the students. The student didn't use facial expression. The students didn't have any motivation to watch him signing. Teachers need to use a lot of facial expression. The students will be motivated to learn and pay attention. Getting students' attention, touching students in proper places, and making facial expressions are important parts of Deaf culture.

Another teacher mentioned that a bilingual classroom has physical environment requirements. For instance, the teacher can set up the class so the children can maintain eye contact. Set up in this way, teachers and students have visual access to each other for the whole lesson.[23] See Figure 4 for an optimum visual arrangement for deaf children in a bilingual classroom.

Teachers also discussed the rules of turn taking in the classroom and how their students responded.

[23] We have noted that in deaf classrooms in public mainstream, many teachers still use the conventional rows and seating arrangement where deaf children cannot see each other. Although this arrangement may be preferable in some situations (e.g., testing), we think the physical environment should be structured in such a way that all students can see the teacher and their peers signing.

Often during class discussion, more than one student has a question and or comment to make. Instead of allowing an interruption of the first student, I will politely sign "one" or "hold" to the second student. If others follow with ideas, I'll establish a sequence, "you, first—you, second, you-third." This is a natural turn-taking skill that is culturally-based, when using American Sign Language.

Figure 4: Optimum seating arrangement in a bilingual classroom for a language lesson

Deaf students seated in a semi-circle

Teacher

Next, teachers were asked to respond to "low" and "high" context teaching behaviors. Low context behaviors refer to activities with little or reduced contextual support. Low context activities tend to be more difficult for second language users because they do not have the background information or prior experiences to complete the tasks. High context refers to teaching activities that provide background information. The context is embedded in the activity. The child is actively involved in figuring out the information in high context teaching activities. During seminar discussions, teachers were encouraged to think of ways they could determine when high and low context activities could be used. It is noted that both are needed for second language learners. In other words, this is not to say low context activities are inappropriate all the time. Often, the student must use memorization to learn aspects of English as well as to learn facts in other subjects (e.g., vocabulary, spelling, math facts, etc.). Students need to be challenged to learn the

technical vocabulary of science, social studies, etc. while reading their school textbooks, and this vocabulary is often presented in low or reduced contexts. Often teachers may find it useful to have the students copy their demonstration of some learning activity. Teachers, though, must know when to use low context and high context activities to fit the goals of their lessons.

We refer the reader to Table 11 from Fradd & McGee (1994) which gives the characteristics of context embedded and context reduced language for further clarification of this important concept studied by our project teachers.

Table 11: Characteristics of Context Embedded and Context Reduced Language (adapted from Fradd & McGee, 1994, p. 77).

Context Embedded	**Context Reduced**
Language Examples	***Language Examples***
14. Oral language and phrases associated with specific events such as greeting and leave-takings.	• Communication and discourse such as lectures and written texts.
15. Ritualized familiar questions.	• Science lesson questions.
16. Conversations with friends about a party they attended together	• Writing a letter to a company for a position.
17. Small group discussion of a simple hands-on science experiment	• Individual completion of written social studies test.
Language Characteristics	*Language Characteristics*
• Frequent turn taking.	• Lengthy paragraph or chapter length language.
• Frequent use of slang, short phrases, sentences.	• Emphasis on correct, formal language.
• Limited word variety.	• Emphasis on varied, comprehensive vocabulary.
• Use of non-verbal support.	• Little, if any, non-verbal support.
• Shared, common knowledge of topics between communicators.	• Communication on known and frequently unknown topics.
• Use of voice intonation, stress, pauses.	• Reliance on symbolic representations for support.

Here are some teachers' comments on high context (context embedded) teaching.

> When my students become too rowdy or overly excited and start to get cut of control, I cease my teasing and change my expression as a signal that we need to get back on track.

I asked him a ritualized question that he is familiar with and he is able to answer me (Do you have a dog? Do you like ice cream?).
When students come in the morning, I pat them on the back and say "good morning," and ask them about last night's activities.

I often relate a story from my childhood in order to show empathy to my students and to make a connection with them when we are dealing with a problem.

I set up cooperative groups with two students who do not normally converse with each other as friends. My hope is that those students' relationships will be strengthened by working together and having a common bond.

I taught the students how to play a summation game as a group. Each took a turn by throwing the dice. They counted the dots and added them together for a sum.

There are many times when the class is being asked to share experiences to the topic we work on. Then I support their comments by recognizing their feelings about certain experiences. The students find it more meaningful.

I try to get input from my students about what they are interested in learning.

And here are teachers' reports on low context (context reduced) teaching activities.

I ask him a question and he does not know the answer. (Do you live in a apt, house or mobile home?).

I ask the children to write a thank you letter to Sprint. They copy a sample I write on the blackboard.

I taught children how to make tangrams by copying a sample.

I set up a science experiment where students must use tools and measurement devices.

I ask children to write a personal informal letter to their student teacher.

For many activities, I start modeling what the class will do independently. It increases their confidence in making efforts to learn independently.

Reflective Log Question #8:

1. Stefanakis (1998) stated that "in formal assessment 75% of the bias is in the humans and the process of assessment" (p. 12). Identify and reflect on an example of "bias" in the formal assessment process of one your own students.
2. Describe what you are currently using to informally assess the L1 and L2 of your students.

Teachers began to explore the issue of how to assess both the ASL and English abilities of deaf bilingual children. They also described what assessment instruments they were now using with their students. (We discuss assessment issues related to deaf bilingual children in Section 5 of this report.)

Here are some teachers' comments on the challenge of testing bilingual deaf children and the issues of bias with instruments that have been designed for hearing children.

> I can identify one example that reflects an example of "bias" in the formal assessment process of my own student. One boy has a deaf family. His family frequently uses American Sign Language (ASL) at home. The family rarely uses English with him. His father was concerned about his writing and reading skills. I asked him if he fingerspelled many words or read books with him. He realized that he rarely finger spells and reads books with him. He was placed into a slower pace because of the delay of his language (English) which was based on formal assessments. During discussion, he easily understands and learns. But he struggles writing English. I am not sure if I should look at his comprehension and expression through ASL, I would recommend him to move up to fast pace class. If asked to look at his comprehension and expression through English, I would recommend him to stay with his current class. I am not sure which language I should base it on.

> Currently, I am giving the SAT…the fact that the majority of the test is given in their second language is one example of a bias…most of my students are fluent in their first language, ASL but are just now acquiring the necessary skills to read and write some English…While the directions and some of the test are signed, it is not done so by a person whose native language is ASL. I also recall other formal tests, which have had questions about experiences, which the child has not had. If the story is about using a musical instrument, or based on someone's experience with sound, it would not be a fair question for a deaf child.

> The students face bias in the area of basic unfamiliar items such as radio and music which are not culturally connected to some homes…or bridges which look different to any bridge in Texas...or a corn field or sailing which some families do not engage in or have the experiences to identify…the tool should include the child's language and culture in the assessment.

Teachers mentioned informal ways of testing students such as having older students read newspaper articles and retell the story. With preschool children, teachers mentioned they observed their deaf children at play, interviewed parents on the child's behaviors at home, and collected information from parents and other staff members about the children's strengths and weaknesses on language behaviors. Teachers reported they were using these assessments for reading: learning logs, reading conferences, anecdotal records, videotaping, retelling of stories, art and captioning for comprehension and sequencing, role playing, group discussions, making lists of favorite words, reading, and fingerspelling. For writing assessment, teachers examined students' letters written home, captions for pictures, learning logs, using webs to incorporate ideas, samples of writing dictated to students, general writing samples, and anecdotal records.

Here are some teachers' comments on assessment.

> To informally assess the L1 of my students, I try to observe them in a variety of situations. I watch as they describe an event, relate an experience, or converse with other students. I really do not feel comfortable criticizing their ASL, especially since six of my seven students are children of Deaf parents….

> When it comes to assessing the L2 of my students, I use their journals. This gives me an idea of their natural English, not something contrived in order to use a particular word or language about a particular topic. They write to me in order to converse and this gives me a chance to see what they can do on their own with English.

> I am currently using ASL to informally assess the L1 and L2 of my students. The students read books daily. Each student reads a book daily. The student reads English and translates it to ASL…the students would

identify some new words…point to the word, fingerspell and sign it…ask other students to fingerspell it…I also ask the students to write a short story after they read the book together...they were also asked to draw pictures and write sentences…..when they were done, they shared their story...they could read the sentence easily and translate it to ASL.

To assess the L2 of my students I use weekly word writing (write as many words as you can in a time span) to check word vocabulary and spelling retention and then I formally check spelling skills using spelling tests. We write dialogue and other journals and some written talks with no structural framework to allow freedom and independent writing skill assessment...we also work on formalized structured language writing to write weekly shape books…I can compare the carry over in their independent writing. I use observation and story retelling, and role playing to check language in reading.

Students read "one on one" with me to allow observational assessment. We usually make a product and the students explain the project providing observations time to assess language and comprehension. I assess their L2 in natural communication and by the use of observation. I use observation to assess their ability to communicate and express wants, needs, and experiences using their L1.

The students' L1 is evaluated during class discussions...all students receive daily participation grades…this reflects their expressive and receptive uses of ASL during class activities…I will make notes in my grading if a student lacks comprehension skills…my assessment primarily focuses on their use and comprehension of written English, their L2. This is evaluated through class discussions, using ASL, to explain their comprehension of the English…written tests are also used in the evaluation of their understanding.

Reflective Log Question #9:
Using the Denver Reading Attitude Survey (Rhodes, 1993), interview all of your students. Complete the summary sheet attached. Explain three conclusions you could make about your students based on the data collected..

In order to explore the student or "inside view" of how children feel about language learning, two surveys on student reading and writing attitudes were adapted for this study (Rhodes, 1993). Although the attitudes of deaf college students have been explored (Kannapell, 1989), the attitudes of young deaf students toward literacy is an unexplored

area of research (Vernon, 1995). This fact is surprising given the importance of attitude in second language learning (Baker, 1992; Baker & Jones, 1998).

We modified the Denver Reading Attitude Survey (Rhodes, 1993), a 17-item survey which provides an indication of students' engagement in reading activities, students' perceptions of the importance and utility of reading and their confidence in themselves as readers. See Appendix G for a copy of the reading attitude survey.

Teachers reported that most of their students had confidence in their ability to read, but they did little recreational reading at home.

> One of my students interviewed really struggles with reading. It was interesting and encouraging to note that he considers himself a skilled reader despite his struggles.
>
> I was somewhat surprised with the results of the reading attitude survey. I was expecting that the students would have a more negative view of themselves as readers based on what I hear and see in class.
>
> Many of the students are only reading for school too. What can we do to change this attitude?
>
> Unfortunately, my students don't read books, newspapers and at home. They don't tell their friends about a good book. After the library, they tend to show books to each other. They looked at the pictures. I didn't see any discussion between students about the book. A student's father told me that he doesn't like to read anything at home. But he would read the instructions to any computer games.
>
> Most students know that it is important to read books. But they aren't reading. Apparently, they were taught that reading is very important. But they don't realize how important they will be in their future. The parents should encourage them to read often at home. They should explain to them and tell them how important reading is. The parents and children should read together.
>
> The students in my class don't show any pride in reading or knowledge in authors. I tried showing them different books by the same author. They were surprised that the author was the same person who wrote several books.

> Overall, my students seem to have a positive opinion about their ability to read.
>
> The students showed me that they were varied in their reading habits. While two said they read outside of class once or twice a month, two others reported that they hardly ever did. These answers are consistent with their responses to reading the newspaper, as well. This tells me if high-interest material was available in their residential environment, they may read more often.
>
> The survey also showed that my students loved reading…"when they have the time, they request to visit my class library. Many of my students have been read to at home and have books available to them there. I am happy to see that a love of reading has been instilled early in them.

Teachers also noted that some of their students seldom read a newspaper.

> Most of my kids thought they were good readers and most thought that other people thought they read well and finally most thought they read fast…I learned that none of my students look at a newspaper!
>
> One fact that is not a surprise to me is that most of my students do not read the newspaper. In other words, I do believe they have newspapers in the home, but they do not have a need or interest in reading them. Also perhaps the reading level of the newspaper is too high for them.
>
> But this was not always the case as this teacher reported.
>
> Four out of six students reported they rarely or never read outside of school. Three of these same 4 students reported that they read the newspaper everyday.

One teacher made the point that the Denver Reading survey was too difficult to administer to her young deaf students.

> I found it difficult to interview young children using this format…the answer choices were too difficult to scale accurately.

Reflective Log Question #10:

1. Using the Denver Writing Attitude Survey (Rhodes, 1993) attached, interview all of your students. Complete the summary sheet attached. Explain three conclusions you could make about your students based on the data collected.

We modified the Denver Writing Attitude Survey (Rhodes, 1993), a 12-item survey which provides an indication of the students' engagement in writing activities, the

students' perceptions of the importance and utility of writing, and their confidence in themselves as writers.

Teachers reported that their students were not using writing at home to a great extent.

> All students in my class do not have enough natural writing experiences at home. It has a big impact on my long-term perspective because I often wonder why they have so much fear expressing in writing with enthusiasm. They also do not write notes for pleasure at school or home. Does it mean their parents do not write them short notes?...

> From the survey, I can tell that my students do not do a great deal of writing at home. Most of them do not write for pleasure and their responses showed that they do not write much but prefer reading in their free time.

Also, teachers reported that their deaf students had inflated images of themselves as writers that did not coincide with their actual writing abilities.

> The strange part of this survey is that all of them [students] think they are average writers. I think they would consider themselves poor writers because they show struggles in my classroom...their answers don't match...the last question asks whether they are good at putting their ideas down on paper...most of them think they are always good at that. I am surprised because they haven't shown this skill in my classroom. After this interview, it gives me more thoughts on how I can help improve their writing experiences.

> Seven out of nine students think they are "good to very good" writers. I feel that young children at this particular age love to write anything, especially words to go with drawings. Their writing experiences can be from drawing to scribbling to printing words; therefore, they have more risk-free opportunities. They are not worried about rules such as grammar, semantics, or syntax yet.

> Similar to their self-ratings as readers, my students felt they were good writers. Most of their self-ratings were "good" and "very good" with one student rating himself as an "average" writer. This is very encouraging since I believe this is their weakest area of all.

> All students in my class feel proud of the things they write in school. It really made me ask myself if it is true. I am not sure about it. I tried asking them to write about a thing. They always said, "I can't. It is hard for me." Their sayings made me think that they didn't have any pride in

> their writing. I tried to work on their confidence. I realized I assumed wrong.

Reflective Log question #11

1. Using the Signing Attitude Survey attached, interview all of your students. Complete the summary sheet attached. Explain three conclusions you could make about your students based on the data collected.

The project staff developed an ASL Signing Attitude Survey based on the Denver Reading and Writing Surveys (Rhodes, 1993). See Appendix H for a copy of the ASL Signing Attitude Survey.

Teachers commented on how their deaf students enjoyed ASL storytelling. Here are teachers' comments about these surveys.

> I noticed that students become more excited and involved in storytelling if they have some signs or "Deaf" symbols in the story. For example, "The Kissing Hand," is a beautiful story and I know my preschoolers loved it even more just because the mother raccoon signed "ILY."...they enjoyed many different stories but will feel more attached to them if they include their "Deaf" culture. They ended up playing with "signs" about the heart. One student would show the way she signs a heart while others would correct and show theirs....signing is obviously important to my preschoolers after I talked with them about it...they know how to use an interpreter and they are also aware of people with poor signing skills.

> This signing attitude survey helps bring more positive results than the two other surveys for a few simple reasons...sign language is the students' most comfortable communication mode. It is also their first natural language. The students know from their hearts that they learn so much through signing and sharing what is on their mind through signing.

> All of my students feel that signing helps them to tell others how they feel about things.

Two teachers were surprised that deaf children did not rate themselves higher on signing abilities.

> Students recognize that they learn through sign language...I am impressed with their awareness of their ability, use and understanding of sign language...I was shocked to find that they do not consider themselves as superior signers...only half of the students think they are good signers,

and two reported they were average. None of them feel as though they are very good signers.

The two students who rated themselves lowest in this were a complete surprise to me.

Reflective Log Question #12:

1. Using the ASL Proficiency Checklist form, record your observations of one of your students by indicating (month/year) that you observed it under the first column of Observation 1. Summarize your findings. Discuss how this checklist can be improved and indicate what items were difficult to observe.

The project staff recognized the critical need for a project such as ours on bilingual approaches to provide teachers with an instrument that assessed ASL skills. But we realized that we could not develop such an instrument within the project because of the enormous scope of developing such an instrument related to sound psychometric properties. However, a major focus of the project was to identify needs of bilingual teachers such as an ASL assessment so we experimented with various checklists. We found ASL checklists to be unsatisfactory for several reasons: (1) Many of our teachers lacked linguistic knowledge of ASL. This is not surprising given that ASL linguistics is a relatively new field even for linguists, and much of this information has not yet filtered into teacher training programs in deaf education. (2) No commercial ASL tests for children that were psychometrically sound and easy and efficient to administer were currently available; and (3) The ASL checklists already developed by some schools did not have psychometric validation.

A major purpose of our project was to raise and critically examine educational questions such as ASL assessment, we went ahead and experimented with a modified ASL assessment (see Section 5 for a detailed discussion of this most important issue of ASL assessment of bilingual deaf children).

We began our experimentation by discussing an instructional language assessment designed for bilingual hearing children (Fradd & McGee, 1994; O'Malley & Pierce, 1996)[24]. We think such an instrument should include the following ASL skills: the use of gestures, classifiers, handshapes, simple signs and non-manual signals, sign phrases, facial expressions asking questions, signing sentences, using space, signs for negation, -wh questions, sequencing story ideas, nouns that show number, aspect, Yes/No questions, topicalization and body shifts, complex handshapes, noun modification, topicalization, rhetorical questions, and abstract referencing.

After our discussion and experimentation, we decided not to continue with this ASL checklist because we believed it was inadequate and needed more rigorous study by a team of ASL linguists and teachers of deaf children—a goal beyond the scope of this project.

We did however present some preliminary data on teachers' opinions of the ASL checklist because we think this information would be useful to ASL linguists who wish to develop such an ASL checklist for children in the future.

Most teachers recognized the need for an ASL proficiency checklist for children.

> The checklist certainly helped me assess my students' ASL skills and development as well. The checklist also helped me recognize the big difference in expressive and receptive ASL in both social and academic languages between this student and another student.

And another teacher concurred with this teacher. Here is what she said about one of her students learning language for the first time.

> This checklist was extremely helpful in creating a more cohesive picture of my student's language use and where to go next. The student I observed was exposed to ASL for the first time last year. She just recently began expressing her thoughts, desires, and feelings with formal language.

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[24]Checkout the Instructional Language Assessment web site: http://www.atlantic.net/~sfradd/

The checklist also gave the teachers a "vocabulary" with which to discuss their deaf students'ASL skills, and they showed increasing linguistic sophistication in discussing the ASL abilities of their students. Take these teachers comments, for example.

> The checklist showed me that he does have basic ASL skills, especially in the area of facial expressions. He uses all the basic handshapes. His weaknesses appear to be classifier use and the use of body position. He has no problem using lengthy ASL sentences, but sometimes the grammar is a bit awkward or mixed up.

> I was able to determine that one student is at category Level 3 entry. This student is also capable of being in category Level 3 Exit. This student uses ASL at all times. He relies on both receptive and expressive. He has met all observations at Level 3 Entry except for categorizing and organizing. Being organized is one of his weaknesses in most skills he has…he is capable of pointing in space consistently to represent non-present objects and people and role playing through body shifts, eye gazing, and facial expressions.

Here is another example of teachers observing students' ASL skills during class.

> These observations were made during class discussion, a story retelling, and social conversations outside of class…I observed this student fingerspelling proper names, and short words. He fingerspells in academic and non-academic settings. Also he was clear in character identification, role shifts, and role-playing in storytelling. While retelling our current story, he demonstrated different aspects…to denote different characters... during class discussion, he also showed that he can relay abstract ideas using ASL with limited visual aids.

But teachers also expressed concerns about such an ASL checklist. One teacher commented she needed more instruction about ASL grammar to use the checklist.

> I need more knowledge of ASL in the linguistic sense of grammar and structure…I know what I understand receptively as a whole, and I find it frustrating to try to see the parts…a checklist with the grammatical and developmental features are important and should be used in our classroom.

Two teachers expressed that the checklist should be improved.

The checklist is a good template in which to start evaluating ASL development and acquisition for deaf educators. However, it has room for improvement that should be discussed among current educators and ASL users…I think the checklist is somewhat vague and needs more specific examples for observation. I also think it needs to be checked against ASL research that exists.

And here is another teacher's suggestion that critically evaluates the ASL checklist for her students.

> I found it difficult to observe some of the checklist items without a set activity…also, I am curious how the order of observations and decisions about levels were made. Was this based on developmental hierarchy of ASL use? Do students who are born to deaf parents and receive ASL from birth develop ASL in the same way as students born to hearing parents who are not exposed to native signers until later in life? These are a few of the questions the checklist brought up to me.

Reflective Log Questions #13

1. Using the Language Proficiency form and several written language samples from one of your students, record the date (month/year) of each observation. Describe what you learned about this child's written English. Discuss how this checklist can be improved and indicate what items were difficult to observe.

Teachers were asked to study Fradd's and McGee's (1994)'s Language Proficiency Checklist and then take their students' writing samples and describe what they had learned about the students' written English. This language checklist was developed from the authors' work with bilingual hearing children, learning English as a second language (Fradd & McGee, 1994).

The checklist was composed of five levels. At Level 1, the child shows mastery of using gestures, naming items, and writing nouns, verbs and short phrases. At Level 2, the child is able to write phrases, show limited control of grammar, and begin to write in sentences. The child then can demonstrate beginning to write in a paragraph, write about

cause and effect relationships, and writing Wh-questions. At Level 4, the child begins to write the past, present, and future tenses; write stories with a beginning, middle, and end; and make age-appropriate grammar mistakes. The child can write figurative and literal meanings, order a story, and state and defend personal ideas in writing. At Level 4, the child may appear to be English proficient but will need support. The child can use figurative, idiomatic, and literal expressions in different contexts, write different text structures, and monitor his or her own progress as well as write using charts, diagrams, maps, and tables. At Level 5, the child is expected to communicate in writing at the level of an educated native speaker..

Here is what the teachers said about this Language Proficiency Checklist.

> After looking over several writing samples, this student seems to be at an entry level on Fradd's language proficiency checklist. The student is communicating in words and phrases on a familiar topic, however, has very limited control over his/her grammar.

> I have learned that my student's written language is at Level 2 entry because he has written phrases from memorized or role modeled material. Also he writes his own words and phrases on familiar topics, with limited control of grammar…he is a kindergartner…he is learning how to write in a natural process…he has not written questions yet.

> His samples showed me the student has a good idea about the structure of English. He writes seven to ten letter words without help. He has a tendency to make run-on sentences. He does not use periods to end some sentences. He has capitalization skills and uses capitals on the first word of new sentences and the names of places…he uses past tense verbs, although irregular ones seem to give him a problem (i.e. hided). He uses adjectives and occasionally adverbs to make his decisions more interesting…He knows when to use plurals, but does not always do it consistently…his stories had a beginning, middle, and ending so he has a sense of what a story should contain.

One teacher commented that she was able to track the child's progress from Fall to Spring using this checklist.

> By May of this year, …writing samples revealed improvement in: increase in the use of plurals and past tense, decreased use of run-on sentences, appropriate capitalizations and punctuation, and use of paragraph structure…we spent a lot of time and energy learning and reviewing those aspects of English this year.

Summary of Teacher Comments

During the Fall of 1998, NMSD and TSD teachers participated in Level 3 of the ASL/English Bilingual Staff Development model. Teachers read, reflected on, wrote, and discussed various bilingual/ESL model programs, distribution patterns of language allocation in the classroom, bilingual strategies such as concurrent translation and preview-view-review method, language learning principles, and the use of fingerspelling as code switching method. Teachers also discussed how to inform parents about speech training and how to use the skills of speech therapists effectively within a bilingual framework.

Here were teachers' comments about Level 3 training, the staff, and their teacher-colleagues.

> Star Schools has really helped me examine the linguistic aspects and develop new ideas in the area of language development…Star Schools taught me to focus on ASL and English from the perspective of ESL education and research. It defined the acquisition of the first language and the learning of the second language. These insights and established research gave me new avenues of exploring teaching.

> The seminars were a priceless opportunity to exchange ideas and bond with other teachers. The common goal created a positive learning environment…the mentors were inspirational and supportive…They provided great expertise and made seminars very practical.

> I feel the staff is insightful and supportive.

Another teacher commented on how Level 3 training helped her analyze the allocation of both languages—ASL and English—in her daily teaching.

> I understand the need for presenting ASL and English as two separate languages. This way students get a more realistic picture of what each language should look like. Moving back and forth, using various concurrent methods as described by Jacobson, students are able to see how the same information in one language could look in another language. They are presented with a complete model, before discussing parts that help make up the message.

And still other teachers mentioned how the seminars on bilingualism impacted their teaching of reading.

> I have altered and re-altered my reading program as a result of Laurene's [Gallimore] inservices, and the discussions in seminars…I strive to incorporate silent reading, shared reading, and read alouds, paired reading and guided reading in my programs. Time is my biggest challenge. My guided reading has been impacted the most. First, the story is always shared for enjoyment and personal connection…via ASL. Then I use overhead transparencies to begin the guided reading process (again presenting English as a whole). I tell the story in ASL, with English overhead transparencies available to refer to the print. I follow the ASL concepts, and identify them in English. I model concepts such as reading on, and going back and rereading. In this process my goal is to show ASL and English convey the same concepts but in different orders. Strategies such as reading on, and backing up, and rereading can support us in the reading process. I demonstrate these strategies through modeling and thinking aloud and talking through my own reading processes.

> I have taken a much closer look at the whole-to-part theory of language presentation…at first, I started introducing new vocabulary on flash cards, now I introduce them in sentences, within a context. This offers my students the opportunity to see language as a whole.

Teachers began Level 4 training in the Spring of 1999. Teachers studied the role of culture in language use. They discussed high and low context-teaching environments. Then the teachers discussed the complex task of assessing deaf bilingual students. Teachers began to study the issue of how to test the child's ASL and English abilities in non-biased ways. Teachers then read about and experimented with language attitude surveys to determine the students' attitudes toward reading, writing, and signing. After looking at the students' "inside view" of their language learning, teachers were surprised

to learn that many deaf students overrated their reading and writing abilities and underrated their signing abilities. Finally, teachers experimented with analyzing a student writing sample using Fradd's and McGee (1994) Language Proficiency Checklist to see if these categories fit those of deaf students' English writing abilities.

Here is what some teachers said about Level 3 of the training.

> The Star Schools training is a rare and valuable opportunity for classroom teachers to collaborate.
>
> I am more confident with using both languages during instructional time…sandwiching, chaining, and guided reading and what I find made an impact on my teaching. Fingerspelling has become more natural in my communication with my students this year compared with last year.

And here is what two teachers said about the assessment component of the Level 4 training.

> The analysis of ESL students' written English was helpful when considering deaf students' written English. Fradd's system of thimble, cup, bowl and basket was a visual approach that aided in the evaluation of language ability of ESL students.
>
> The discussion of assessing a student's first language use was very insightful. This made me more aware of my students' ability to use ASL as an effective medium of communication and means of education. In addition, the survey of attitudes toward sign language in which we administered and documented the students' self-assessment of their own use of ASL. These explorations brought ASL's importance in our classroom to the forefront. It seems that there is a positive correlation between the students' perceptions of his/her ability to communicate effectively and her/his academic success. The more confident and comfortable the student is in communicating through sign language, the more she/he challenges herself academically.

Student Outcomes Related to Eight Engaged Learning Variables

To connect our Deaf project with four USDLC projects, we related the eight Engaged Learners Variables with the language behaviors of the deaf students as reported

by the NMSD and TSD teachers who used the ASL/English Bilingual Staff Development training during Levels 3 and 4 (Fall, 1998; Spring, 1999).

We list the Engaged Learners variables and then describe student language behaviors (see pp. 1-2 for a full description of variables).

EL Variable #1: Vision of Learning. NMSD and TSD teachers used a variety of diverse projects in their teaching. Students become responsible for their own learning by writing reports. For example, teachers used ASL storytelling, and thematic units on oceans and the tides where students developed their own project booklets. Younger students learned to read environmental print, participated in bookreading sessions, watched movies with English captions, wrote personal informal letters to teachers and friends, and participated in math and science experiments.

EL Variable #2: Task. NMSD and TSD teachers used ASL, a language their students understood, to engage them in conversations. As mentioned above, teachers set up real world, relevant topics, and deaf students learned about environmental print, science, and math concepts. Further, they read books and captions on movies and wrote personal letters.

EL Variable #3: Assessment. Teachers studied and experimented with four assessment instruments for deaf bilingual students: Denver Reading Survey (Rhodes, 1993), Denver Writing Survey (Rhodes, 1993), ASL Attitude Survey, and the Written Language Proficiency Checklist (Fradd & McGee, 1994). These assessments provided teachers with a rubric or rating system to measure students' progress in ASL and English.

Project staff also developed a teachers' self-assessment for bilingual teachers: Star Schools Project Teacher Self-Assessment (see Appendix E for a copy).

EL Variable #4: **Instructional Model**. The ASL/English Bilingual Model is the instructional model of this project. NMSD and TSD teachers introduced new topics and had discussions with students using ASL. Teachers then used ASL to teach English incorporating various bilingual codeswitching strategies (concurrent translation, fingerspelling, and preview-view-review techniques).

El Variable #5: Learning Context. NMSD and TSD teachers created a learning context by incorporating aspects of the Deaf culture in their classroom use of language. For example, they helped students learn ASL pragmatic skills: turn taking; how to start, maintain, and end a conversation; how to interrupt appropriately. The students also learned about attention-getting devices: using lights, motion, and eye-gaze. Teachers worked with students to use facial expressions in their storytelling. Teachers also set up the physical environment (arrangement of furniture) so that all students could see each other's signing as well as the teacher's signing. All of these activities helped create a more comfortable language and cultural learning environment for deaf students in tune with their use of vision.

Teachers set up a culturally relevant learning context by using non-biased assessments. (see Engaged Learners Variable #3 above).

EL Variable #6: Grouping. NMSD and TSD teachers reported they used cooperative learning projects. Students came from diverse backgrounds, with diverse skills in ASL and English, hearing losses, etiologies, and some had additional disabilities along with deafness (vision, motor, learning). Deaf children from diverse backgrounds learned from each other.

EL Variable #7: Teachers' Roles. NMSD and TSD teachers reported they guided their students through language learning lessons using ASL, and then taught English as a second language. Teachers also gained confidence by administering four assessment instruments designed for this project to determine the ASL and English proficiency of the students.

EL Variable #8: Students' Roles. NMSD and TSD teachers reported that through various language learning activities (supported by the ASL/English Bilingual Staff Development Model) such as ASL storytelling, ASL bookreading, writing, etc., students explored how meaning can be produced in two languages—ASL and English. Teachers also looked at the students' "inside view" of how they felt about their reading, writing, and signing abilities by conducting three attitude surveys. By producing these attitude surveys along with written reports, captioning pictures and projects, sending emails, and researching ideas on the Internet, students learned that they could become knowledge producers, just as their teachers.

Section 5: The "Trial Garden" of Bilingual Assessments for Deaf Students: An Exploration

In this section, we examine issues related to the complexity of assessing hearing bilingual children in general and deaf bilingual children in particular. We also discuss the importance of deaf students' attitudes toward signing, reading, and writing—a neglected area of research but a critical component of deaf children's challenge to learn two languages. Further, we discuss the complexity of analyzing ASL skills. Then we examine the complexity of analyzing deaf children's writing--a literacy event that is often underrated with regard to the child's complete linguistic abilities.

In light of these assessment issues, we describe the "trial garden" of four assessments we developed for the ASL/English Bilingual Staff Development Project to measure deaf children's proficiency in ASL and in English. We also discuss our concerns about the need for an ASL proficiency checklist for children that is psychometrically sound and would be easy and efficiently administered by school staff—currently, no such measures are available.

We discuss the experimental nature of our attitude surveys and English assessments in that we modified them from assessment instruments developed for bilingual hearing children (Fradd & McGee, 1994; O'Malley & Pierce, 1996; Rhodes, 1993). The teachers studied the surveys and assessments and tried them out on their deaf students to test their validity.

In this section, we also describe a self-assessment for bilingual teachers of deaf students that we developed and a survey that measures teachers' use of technology in the classroom.

During Year 2, project teachers and staff *experimented* with these instruments with select students to see how they would work. In Years 3, 4, and 5, we will collect data on the deaf students using these instruments with a larger group. Table 12 shows the instruments we used.

Table 12: Project assessment instruments developed for deaf bilingual children

Persons	Language assessed	Name of instrument	"Insider (deaf student) or outsider (teacher's) view of assessment
Deaf students	ASL	1. ASL Attitude Survey	Insider's view
Deaf students	English	2. Denver Reading Attitude Survey	Insider's view
Deaf students	English	3. Denver Writing Attitude Survey	Insider's view
Deaf students	English	4. Language Proficiency Checklist	Outsider's view

We also are collecting SAT scores and relevant background variables (age, etiology, age of onset, parent communication, ethnic background, presence of additional disabilities), and a twice a year language sample was collected for all children in the five year (1997-2002) project.

The Complexity of Assessing Bilingual Children

Bilingual proficiency refers to a person's ability in his or her two languages across four basic, interrelated, and multidimentional language abilities: listening, speaking, reading, and writing. However, second language theorists agree that no one test or group of tests will comprehensively measure a person's language proficiency.

Language proficiency is often differentiated. Language that is used in conversations such as greeting a person, ordering a McDonald's hamburger, or chatting with friends is called social language. But the formal language (called academic language) of the classroom is different. Here the student must read textbooks with technical vocabulary in science, social studies, mathematics, etc. This distinction between social and academic language has been made by Cummins (1984) in what he terms BICS (Basic Interpersonal Communication) and CALPS (Cognitive/Academic Language Proficiency).

Often bilingual children are taken out of bilingual classes because they show competency in conversational English, but once in the mainstream, they "sink" because they cannot read the textbooks. In other words, they have social English, but they lack enough English to help them with their academics (reading textbooks, writing essay questions, etc.).

Second language theorists have pointed out that methods of assessing bilinguals are highly controversial. Problems with test scores have been mentioned by many (e.g., Valenzuela & Cervantes, 1998). Test scores have been used by educators and politicians for a variety of purposes. Educators and administrators may use test scores for placement decisions. For instance, an immigrant child may be pulled out of a transitional program and put in the mainstream program if he has high test scores. Test scores have also been used by school districts for funding formulas. Recent laws in California and other states have shown the public's desire for accountability for funding for bilingual programs (Ovando & Collier, 1998). In other words, they want to see if all the financial support and effort in educating children bilingually is worth the expense.

These are legitimate reasons and concerns for using testing. However, it must be understood that language proficiency cannot be determined solely by test scores. Both qualitative and quantitative measures need to be used to get a comprehensive picture of how the child is performing. Paper-and-pencil measures of global language ability seldom show the whole picture of language proficiency in a bilingual child.

Language proficiency has many linguistic components, sociolinguistic, discourse, and the use of strategies. Knowledge about different languages is not just about linguistic competency in the two languages but how the language is used appropriately with different people in different settings (Baker & Jones, 1998).

Increasingly, teachers have sought qualitative evidence about a bilingual person's ability to use language rather than global linguistic measures such as extent of vocabulary and knowledge of English grammar. Fradd and McGee developed a visual analogy conceptualizing the bilingual child going from thimble (beginner), to cup (primary), to

bowl (intermediate) to basket (advanced) in language learning (Fradd & McGee, 1994). Fradd and McGee (1994) and others have developed assessments as language records and checklists of language functions and structures for teachers to document the bilingual child's language behaviors (Cline & Frederickson, 1996; Fradd & McGee, 1994; O'Malley & Pierce, 1996). These authentic assessments offer the teacher more diagnostic information for instruction.

The Complexity of Assessing Deaf Bilingual Children

Deaf children are diverse in their ASL skills and English abilities. To assess deaf bilingual children appropriately means determining their language proficiency in ASL and in English. It also means taking into account the deaf child's background characteristics such as age of onset, etiology and additional disabilities, home and school language, and when the child started school—all of which are variables that influence language learning and need to be determined in any language description of the deaf child.

We used our bilingual framework (Nover et al., 1998), and we conceptualized that deaf bilingual children can be assessed over 10 language skills: watching or attending to sign, signing, fingerreading, fingerspelling, reading, writing, typing, listening, lipreading, and speaking. At this time, however, we do not have valid assessment measures for each of those skills. Up to the second year of the project, we are experimenting with ASL attitude measures, English (reading and writing) attitudes, and written English proficiency.

ASL measures. There is currently no commercial assessment available for deaf children's ASL skills that are psychometrically sound and are easy and efficiently

administered to deaf children by school staff. Work is being done by ASL linguists throughout the county, and it is expected that within the next few years, a commercial ASL test for children will be made available to schools (Mounty, 1993; Prinz, 1998).

As we mentioned in Section 4, teachers in Level 4 (at NMSD and TSD) experimented with an ASL proficiency checklist. However, an adapted checklist the project staff worked on was considered to be inadequate after much discussion. Project staff did identify specific ASL skills: gestures, words, classifiers, handshapes, sign phrases, facial expressions, question formation, sign sentences, signing short stories, topicalization, rhetorical questions, storytelling, role playing, body shifts, advanced handshapes, noun modifications, and conditional and complex sentence types. However, the project staff and teachers were not satisfied with the ASL proficiency checklist. It was decided to gather information on the use of it but to leave it to the ASL linguists to develop such an ASL proficiency checklist for teachers of bilingual deaf children.

ASL attitudes. We used an attitude scale designed for hearing children and modified it for deaf children to determine their attitudes toward ASL (see Appendix H for a copy of this attitude scale). Our preliminary studies show that deaf students, more often than not, underrated their ASL abilities. This finding warrants further investigation.

English measures. Measuring deaf children's English proficiency is also a complex task. Researchers have pointed to the weaknesses of standardized subtests such as the Stanford Achievement Test (SAT-9th edition) typically given to deaf children nationwide. These multiple choice format test items seldom show the deaf child's knowledge of the English language.

Another commonly used assessment instrument is the written language samples. Typically, deaf students look at a picture, watch a movie, or go on a field trip to have some "language experience." Then the students are required to write about it. It can take the form of a journal entry or a story or some classroom report. Teachers then grade these reports for content or meaning and form or grammatical elements found or missing.

Teachers often recognize that deaf students' ASL signing ability will transfer or mix into the students' writing of English. For example, see this language sample from one of our elementary children in the project. We have underlined parts that we want readers to note.

Language sample of a deaf elementary school student illustrating codeswitching.

"How do I find about the Earth"

> I not know much about Earth. I have no feel about Earth, but I finish learn about Earth. People need care for home. People need respect. People nice to Earth. Animals can live long if animals eat healthy food, drink clean water and breathe clean air. Animals live Free. Each help people and animals live. Each is very pretty because blue water, colors many different. Earth need nicely. Earth not need mess.

This young deaf bilingual writer is struggling with article and verb tense usage—common developmental errors of persons learning English as a second language. But upon closer inspection of this child's written language sample, one can note language interference or transfer in which the child's dominant ASL has influenced his writing of English. For instance, the writer has used the ASL sign FINISH to show past tense with his verb phrase, "learned about the Earth." And in the next to last sentence, he also has used another ASL grammatical feature, that is, placing the adjectives after the noun in "COLORS MANY DIFFERENT."

Second language theorists say the child is codeswitching within sentences. In fact, very few young bilinguals like this deaf writer keep their languages completely separate. Instead, students codeswitch intersententially (within sentences) or intrasententially (within paragraphs) and use their stronger, more developed first language to communicate in their less-developed second language. This language interference or language transfer is considered to be a common feature of second language acquisition or learning (Baker & Jones, 1998).

Language interference or transfer is often negatively received by those teachers with a monolingual perspective. They may blame ASL for the deaf child's lack of written English competency. However, from a bilingual perspective, one sees this interference as a normal developmental pattern in second language learning. As children become older and as they learn more about the second language, their writing will show less transfer and more separation between the languages (Baker & Jones, 1998). Seldom, though, do we as teachers give deaf children credit for this linguistic competence in ASL that blends into their English writing.

For purposes of this project, we developed a written language proficiency checklist for deaf students. The assessment instrument was modified from the work with hearing bilingual children (Fradd & McGee, 1994). The Written Language Proficiency checklist was made up of five levels of English literacy development from scribbling and invented writings to writing as a native user (see Fradd & McGee, 1994).

During the second year of the project, teachers collected writing samples and used the Written Language Proficiency checklist to assess them. This instrument will also be used in Year 3, 4, and 5.

English language attitudes. We know very little about how deaf children feel about their English and ASL abilities. In fact, although there are some data on language attitudes of college age deaf adults (Kannapell, 1989), there is little language attitude research on deaf children (Vernon, 1995). Attitude assessment toward a second language is important because positive attitudes are related with increased learning and motivation, and this could possibly apply to learning a second language like English for deaf students (Baker, 1992; Baker & Jones, 1998).

Attitudes are often difficult to assess reliably because an attitude cannot be directly observed like one's height, weight, or hair color. Attitudes are dispositions to respond favorably or unfavorably to something like a language, person, or an institution. Attitudes are often assessed by self-reports and observations, and there are reliability and validity issues. Nonetheless, many studies have been conducted on attitudes to specific languages, language variation, language lessons, and the learning of a second language. Statistical techniques have been devised to ensure greater reliability and validity for these attitude measures (Baker, 1992; Baker & Jones, 1998).

The project staff developed three attitude surveys to assess deaf children's attitudes about reading, writing (English), and ASL. These attitude assessments were modified from those used with hearing children (Rhodes, 1993). It is noted that these surveys do not yet have psychometric validation. They were simply an attempt by the project staff to experiment with the notion of collecting the "insider's view" (that of the deaf student) about language learning. Additional studies can further revise our attitude surveys and test them on larger populations of deaf students (see Appendix G for the reading and writing attitude surveys.

SAT scores. There are inherent weaknesses in standardized tests such as the Stanford Achievement Test (SAT) for deaf students. Even though the SAT has been normed on the deaf school age population, the test was originally designed for hearing, monolingual children who are fluent, native users of English. Children learning a second language often take four to seven years to acquire proficiency in the second language (Collier & Thomas, 1989). Thus, standardized tests may not adequately assess the child's English language abilities.

Despite these concerns, we know that the SAT is routinely given to deaf children nationwide. Thus, we have established a database for the project students. During the fifth and final year of the project, we will compare the scores of these students with children not enrolled in bilingual classrooms.

Assessment Instrument of Teacher Standards

Project staff developed a self-assessment for teachers participating in the project. This self-assessment has five parts: language/literacy proficiency, bilingual/ESL education and deaf education, instructional language assessment and research, and public engagement. Each level has two to nine competencies in which the teachers rated themselves across a scale of five (beginning, emerging, developing, maturing, mastery) (see Appendix E for a copy).

During the second year of the project, teachers experimented with this self-assessment. Pre and post data on all the teachers will be compiled.

Need for future research

Similar to our first-year report, our second-year report has raised more questions than it has answered. Here are some of our questions.

- Our children, for the most part, have stronger ASL skills than English skills. How can we help them use their ASL to bridge to English competency and provide them with strategies to make this bridge?
- Can we gather psychometric evidence for validity and reliability for language attitude surveys for deaf children?
- What are the linguistic constraints of code switching between ASL and English in deaf children's writing?
- What makes up a comprehensive portfolio of assessments for deaf bilingual students?
- Can we develop standards for bilingual education for deaf children? If so, how can we set them in place at the university, in schools?
- How can we improve the ASL skills of teachers, both deaf and hearing?
- How can we improve the English skills of teachers, both deaf and hearing?
- Middle school, high school, elementary, and preschool children participated in this study. Given older deaf students' background knowledge and cognitive development, do older or younger deaf children learn English faster?
- Can deaf students with hearing parents accelerate in their learning of English given they do not have the same ASL input at home?

Section 6: Family Computer Loan Program

A component of the ASL/English Bilingual Staff Development model was to set up a family computer loan program. This program was managed by Carla Fenner at the New Mexico School for the Deaf. She presented a description of the program, objectives, timeline, equipment, population served, training, students, evaluation, and student and parent reflections. This component fits in with the technology goals of the project—to use technology to promote the use of ASL/English bilingual language teaching.

Program Description

To meet the communication needs of deaf students and their families, NMSD, through funding from USDLC, provided a computer laptop program for these children to have direct access via Internet e-mail with their parents. Laptops were made available to families of students at the New Mexico for the Deaf in February of 1999. Computer and

Internet training were provided to students and families who were selected for participation in the pilot program.

Star School staff met with teachers initially to discuss how this program could be managed in the classroom. Teachers provided input as to how they could support students' use of e-mail and technology in the classroom on a regular basis. Once the pilot began, teachers collected samples of students' e-mail once a week for documentation purposes. They were then given to Star Schools staff.

When the school year ended, students kept the laptops in their homes over the summer months. Students were encouraged to e-mail each other and their teachers during the months they were away from school.

Program Objectives

d) To increase the volume of communication in English between parent and child
e) To provide opportunities for students to practice reading and writing skills.
f) To provide opportunities for students to access information through technology.

Timeline

c)	October 1998	- design computer loan program - order equipment
9.	November 1998	- mail information and application to parents - advertise program in the Star Schools Bulletin
18.	December 1998	- identify Internet service provider - arrange for Internet service for all locations - configure computers at NMSD
•	January 1999	- contact parents to schedule training
•	February 1999	- conduct training with families - conduct training with students - students begin using e-mail
•	March-May 1999	- collect student e-mail samples - troubleshoot computer problems with families

Equipment

Star Schools project staff decided that laptop computers with built-in modems would be most manageable for families. Twelve Macintosh G3 Powerbooks with carrying cases were purchased. The grant did not provide printers; however, families were informed they could purchase one on their own. On-line access for NMSD families was purchased through New Mexico Technet for the duration of the 1999 grant year (through September 30, 1999).

Population/Selection Process

In the Fall of 1998 letters were mailed to parents in New Mexico advertising the Computer Laptop Program. Application forms were included. This program was also described in the Fall 1998 and Spring 1999 Star Schools' Newsletters. Seven parents in New Mexico responded and mailed back application forms.

Students from diverse ethnic groups at NMSD were represented in the study. Parents of one Hispanic, four Native American, and two Anglo students were selected to participate in the program.

Students from grades two to four were selected regardless of their literacy levels. We realized that students at lower reading levels would need to "hunt and peck" to produce their e-mail messages and have teachers assist them in reading their incoming messages. However, it was felt that receiving mail from their parents would be a great motivation to young students and encourage them to want to participate in reading and writing activities.

Parents participating in the program signed a contract agreeing to communicate with their child on a weekly basis. However, it was left up to the parents how many times a week they would communicate with their child.

Training:

Parents. Training for parents was conducted by three staff members from NMSD: Carla Fenner, Mike Romero, and Jill Naumann. This training occurred at different sites. Three families attended training at NMSD, one family attended training at New Mexico Technet, and two families attended training at a Farmington Public School site. Additionally, training was conducted at the home of one family in Albuquerque. Jill Naumann provided instruction in ASL, and Mike Romero provided interpretation in Spanish for one family in Farmington. Training sessions were documented through parent interviews, videotapes and digital photos.

Students. Jill Naumann and Carla Fenner initially instructed the participating students as well as other class members in the use of Internet e-mail. They provided follow-up instruction as needed. Students were also given instruction related to how to use the laptop computers at home during the summer to e-mail each other and some of their teachers.

It was found that students used e-mail on a regular basis in the classroom but only three students used the laptops to send e-mail during the summer months. Two students had technical problems with their computers and did not use them.

Reflections of Families and Students

During initial interviews, parents reported how difficult and frustrating it was to call their child on the telephone and have to relay information using a hearing interpreter.

One parent from Albuquerque stated that if she needed to have a lengthy or detailed discussion with her son, she would drive to Santa Fe mid-week to make sure he understood her. Parents reported that since they have been using the laptops, it is much easier to have direct communication with their child, and they love having more frequent contact.

One parent returned the laptop. Because of family problems, she felt she did not want the added responsibility for this piece of equipment.

Parent Comments:

Margaret:

> The laptop has changed a lot between us through communication because now I don't need to call him on the phone; we just use e-mail. He tells us what goes on at school and with his sports. He also writes to his brother and sister and they write him back. My little ones are experiencing a lot with the laptop. Mario shows us new things that he's discovered about the computer and how to get new information.

Bessie:

> Kendra wrote short sentences about school to me through e-mail, and then when she came home, she explained in more detail what she meant. Sometimes she creates word lists on the computer, and I think it helps develop her vocabulary.

Cynthia:

> My communication with Chris has increased by using e-mail and even the TTY. It has improved his reading and English skills. There have been changes in his English. For example, he adds more words such as "and, to, the, for, from." He used to write ASL-like sentences. It's gotten easier for me to understand what he's trying to tell me.
>
> He keeps in touch while he is away at school. He asks permission on e-mail to attend sports activites or other activities. Sometimes he asks me to come and bring things he needs or even just to visit! With e-mail, he has been communicating with his grandmother and father, too.

Students' Reflections

Students reported that they learned more about family events and felt more "connected" with their families when they had access to e-mail. One student stated that he felt more confident because he knew how to use technology.

Teachers reported that the students in the laptop program often helped other students with the Internet and e-mail. They stated that students sent e-mail on a daily basis to parents and that two students began communicating with siblings as well. Samples of student e-mail messages were collected on a weekly basis. Teachers commented that students were more motivated to write longer messages and showed an interest in using correct English. Carla Fenner conducted interviews with the students in ASL. Their comments have been translated into English.

Student Comments:

Mario:

> My mom e-mailed me and told me she was going on a trip to New York. I liked knowing about that. My two brothers wanted to search the Internet for songs by Selena, but they didn't know how. I taught them how to use the computer and e-mail.

Dora:

> I am so excited to get e-mail from my dad. He tells me things that are happening at home. My 8-year-old brother, Jorge, and my 14-year-old brother, Alberto, send me e-mail, too. Sometimes I don't understand what they say so my teacher, Rosemary, helped me read it. I tell my family what's happening at school, like what games I play. Before I had e-mail, I didn't know what was happening at home. Now I feel more connected to my family.

Chris:

> I send e-mail to my mom, dad, grandma and friends. My dad sent me a cow birthday card through e-mail! I was surprised.

Kendra:

> It was fun to get e-mail from my mom. She told me what my brother was doing at home. I used the computer during the summer. I drew pictures and wrote words on it. I had trouble using e-mail so my mom helped me.

The families will keep the laptops until the end of the 2000 school year when the computers will be returned to NMSD. At that time, the NMSD staff will evaluate the pilot project to determine how it has been effective for students. Determinations for the laptop project will be based on how to maximize the benefits for students.

Discussion and Summary

From September 1998 to May 1999, we completed Year Two of our five year project. During this time, 25 teachers from three state schools for the deaf participated in seminars where they named their beliefs, critically reflected on them through written reflective journals and discussions, and acted on these beliefs through classroom practice. This report contains six sections. The first section discusses a significant theoretical framework of an ASL/English Bilingual Staff Development Model, including a description of the process of reflection, the importance of insiders' and outsiders' view, and an explication of the engaged learner's model, including eight variables. Section two describes the project contents and activities, including a technology plan for the next three years and descriptions of administrators, teachers, and students. Sections 3 and 4 discuss significant findings of KSD (Levels 1 & 2), NMSD (Levels 3 &4), and TSD

(Levels 3 & 4), teachers' reflective logs and concludes with excerpts of teachers' comments. Section 5 examines and discusses the significant issues of the complexity of assessing deaf students' languages, and describes assessment instruments such as signing attitude, reading and writing attitude surveys. It also discusses the assessment instruments for project teachers and the need for future research. Finally, the last section relates to the family computer loan program, including a description of the program, objectives, equipment, population served, training, students, evaluation, and student and parent reflections.

APPENDIX A

Vision Statement

The Star Schools Project envisions high academic achievement for Deaf and hard-of-hearing students proficient in American Sign Language and English through staff development in assessment and curriculum, parent involvement, and technology.

Mission Statement

The Mission of the Star Schools Project is to provide a bilingual staff development model that promotes effective instruction of language and literacy for deaf and hard-of-hearing students.

Action Framework

The Star Schools Project pursues its vision through a national collaborative effort among educators and researchers who work together to respond to the educational needs of deaf and hard-of-hearing children and provide leadership in staff development. Our mission is accomplished through the following strategies:

- promotion of the acquisition and development of both American Sign Language (ASL) and English for students, staff and parents
- support for staff in the effective use of these languages in their educational settings
- the education of parents about literacy and language development using both ASL and English
- development of appropriate instructional design integrating innovative technology

The Star Schools Project is a five-year grant project (1997-2002) funded by the United Star Distance Learning Consortium, Inc. (USDLC) through the US Department of Education's Office of Educational Research and Improvement (grant number R203A70030-97)

APPENDIX B

List of Speakers

Readers may be interested in the list of experts who came to the schools to give workshops to the project staff and teachers. Contact Stephen M. Nover (snover@nmsd.k12.nm.us) for more information.

1. Dr. Richard Ruiz, University of Arizona, "What's happening in Bilingual/ESL education today" and "Relationship of Research to Policy in Bilingual Education."
2. Dr. Sandra Fradd, University of Florida, "What Bilingual/ESL assessments are used today," and "How to analyze written and signed language samples."
3. Dr. Larry Fleischer, California State University at Northridge. "The importance of identifying an effective system for ASL and English literacy."
4. Dr. Cindy Bailes, Gallaudet University. "Reading methods and deaf students."
5. Janet Weinstock, Gallaudet University. "ASL storytelling," and "Parent Support for Reading."
6. Laurene Gallimore, Western Oregon University. "How to teach reading lessons."
7. Jill Naumann and Kathy Glyer, New Mexico School for the Deaf. "How to use the digital camera in the classroom."

APPENDIX C

Syllabus

Fall 1998 (Level 1) & Spring 1999 (Level 2)

Teacher Development: An Overview:

The Star Schools two-year teacher development plan provides an opportunity for teachers to use critical pedagogy as defined by Wink (1997). Critical pedagogy is a process whereby teachers "name" their beliefs, "reflect" critically on them, and then take "action." Teachers in the Star Schools training will "name" traditional beliefs, critically and collaboratively "reflect" on them, and then "act" to implement effective practices of bilingual/ESL instruction that will enhance the achievement of deaf students in all academic classes. The overall focus will be on two components of bilingual instruction: (1) a bilingual approach that involves the use of ASL and English and (2) an ESL approach that involves the exclusive use of English as a second language.

Seminar Description: Levels 1-2:

During the first year, teachers participate in 24 seminars (2 hours each) totaling 48 hours of training; the initial and final seminar of each semester is used for orientation/review and evaluation. The first year will review the current research on bilingual/ESL education, culture, the deaf bilingual child, first and second language acquisition and learning, language use, language teaching, and language assessment. Teachers will reflect on the concepts of bilingualism presented and observe how they apply to their own classrooms. The result will be a collection of teacher stories that describe teacher development in creating a bilingual classroom for deaf children.

Seminar Requirements

1. **Attendance**: Teachers attend 12 seminars (two hours each) per semester; the first is for orientation and the last for evaluation. Attendance is mandatory because participation in and contributions to the seminars are essential; teachers who miss more than two seminars are subject to losing their stipend ($1,000 each semester).

2. **Communication**: Teachers are expected to use ASL during seminar meetings.

3. **Reflective Logs (RL):** Teachers are expected to complete the reading assignments and type reflective logs before weekly seminars, share individual responses, and participate in weekly reflective activities.

- Reflective log questions will be completed for 10 seminars each semester; these logs will be an individual's response to the readings, topics discussed in seminars, and/or experiences that teachers have had in their classrooms. Log entries will be used as a basis for group discussion, serve as a written record of individuals' thinking, and provide data for research purposes and dissemination of successful strategies of language teaching.
- Teachers are expected to keep all completed reflective logs in a binder throughout the year for documentation of professional development.
- It is critical that reflective logs be turned in on time for effective participation and for research purposes.

4. **Videotaping:** Videotaping may be done at scheduled times. These videotapes will be utilized for a variety of functions in order to fulfill the requirements of the Star Schools project. A videotape can model language use, language teaching and/or specific bilingual methods using

ASL and English. Teachers can use these videotapes for self assessment, paired viewing for peer coaching and/or for demonstrations/presentations to professional peers.

5. **Research Participation**: Teachers must be willing to provide documents, photographs, and/or videotapes for the purpose of data collection and analysis, publication, and dissemination.

Required Texts for Levels 1 (Fall 1998):

1. Freeman, Y. S., & Freeman, D. E. (1998). *ESL/EFL Teaching: Principles for success.* Portsmouth, NH: Heinemann.
2. Ovando, C. J., & Collier, V. P. (1998). *Bilingual and ESL classrooms: Teaching in multicultural contexts.* Boston: McGraw Hill (both semesters and second-year training).
3. Parasnis, I. (Ed.). (1996). *Cultural and language diversity and the deaf experience.* Cambridge: Cambridge University Press (both semesters).
4. A seminar packet of readings is provided (see a list of articles at the end of the syllabus).

The First Year (Level One) of the Star Schools Training
Fall 1998, Level 1

Seminar No./Date	Topics	Required Readings.
S1 (Date)	• **Orientation and Introduction** • **Expectations** • **Organization** • **Self-Assessment** • **Introduction**	
S2 (Date) RL# 1	• **The Bilingual Deaf Student**	Grosjean (1996). Chapter 2: Living with two languages and two cultures (pp. 20-37); Finton (1996). Chapter 17: Living in a bilingual-bicultural family (pp. 258-271, in Parasnis).
S3 (Date) RL# 2	• **Bilingual/ESL Programs**	Ovando & Collier (1998). Chapter 1: Students (pp. 1-26), Chapter 2: Policy and Programs: (pp. 52-61).
S4 (Date) RL# 3	• **Bilingual/ESL Programming for the deaf bilingual students**	Barnum (1984). In support of bilingual/bicultural education for deaf children (pp. 404-408); McLaughlin (1992). Myths and misconception about second language learning: What every teacher needs to unlearn (pp. 1-11).
S5 (Date) RL# 4	• **Language Acquisition**	Ovando & Collier (1998). Chapter 4: Language (pp. 86-105). Hamers (1996). Chapter 4: Cognitive and language development of bilingual children (pp. 51-75).
S6 (Date) RL# 5	• **Language Teaching: Contexts and Orientations**	Freeman & Freeman (1998). Introduction (pp. xiii-xix), Chapter 1: Contexts and Orientation (pp. 1-29); (Optional reading: Ovando & Collier (1998). Chapter 4: Language: Instructional approaches to teaching a second language (pp. 106-134)).
S7 (Date) RL# 6	• **Language Teaching Through Content**	Freeman & Freeman (1998). Chapter 2: Teaching language through content (pp. 30-61)..

S8 (Date) RL# 7	• **Whole-to-Part Approach**	Freeman & Freeman (1998). Chapter 3: Learning goes from whole to part (pp. 62-87).
S9 (Date) RL# 8	• **Being Learner-Centered**	Freeman & Freeman (1998). Chapter 4: Lessons should be learner-centered (pp. 88-125).
S10 (Date) RL# 9	• **Language Teaching Methods**	Freeman & Freeman (1998). Chapter 5: Lessons should have meaning and purposes for learners now (pp. 126-147).
S11 (Date) RL# 10	• **Language Use Through Social Interaction**	Freeman & Freeman (1998). Chapter 6: Learning takes place in social interaction (pp. 148-175).
S12 (Date)	• **Fostering Language Learning** • **Reflection and Evaluation**	Freeman & Freeman (1998). Chapter 7: Lessons should included all four modes (pp. 176-191); McLaughlin (1995). Fostering second language development in young children: Principles and practice (pp. 1-11); Stokoe (1974-75). The view from the lab--Two ways to English competence for deaf (pp. 31-32).

A Seminar Packet of Readings
A List of Articles for Level 1

Seminar No.	SOURCE:
S4	• Barnum, M. (1984). In support of bilingual/bicultural education for deaf children. *American Annals of the Deaf, 129*(5), 404-408). • McLaughlin, B. (1992). *Myths and misconceptions about second language learning: What every teacher needs to unlearn* (pp. 1-17). National Center for Research on Cultural Diversity and Second Language Learning Center for Applied Linguistics. 1118 22nd St. NW, Washington, DC 20037.
S12	• McLauglin, B. (1995). *Fostering second language development in young children: Principles and practices.* (Educational Practice Report No. 14). Santa Cruz, CA: The National Center for Research on Cultural Diversity and Second Language Learning. (ERIC Document Reproduction Service No. ED 386 932). • Stokoe, W. (1974/75). The view from the lab: Two ways to English competence for the deaf. *Gallaudet Today, 5*(2), 32-32.

Level 2

Required Texts

1. Freeman, Y. S., & Freeman, D. E. (1998). *ESL/EFL Teaching: Principles for success.* Portsmouth, NH: Heinemann.
2. Ovando, C. J., & Collier, V. P. (1998). *Bilingual and ESL classrooms: Teaching in multicultural contexts.* Boston: McGraw Hill (both semesters and second-year training).
3. Parasnis, I. (Ed.). (1996). *Cultural and language diversity and the deaf experience.* Cambridge: Cambridge University Press (both semesters).
4. A seminar packet of readings is provided (see a list of articles at the end of the syllabus).

Spring 1999, Level 2

Seminar No./Date	Reading Assignment Due	Written Assignment Due	Discussion Topics/ Activities
S13 **(Jan. 11)**			• Orientation • Expectation • Review: Level 1 • Overview: Level 2 (New Syllabus)
S14 **(Jan. 18)**	Freeman & Freeman (1998). Chapter 8: Lessons should support students' first languages and cultures (pp. 192-218).	**RL# 11**	• First Languages and Cultures • Preview: S15 Topic
S15 **(Feb. 1)**	Ovando & Collier (1998). Chapter 5: Culture (pp. 135-156)	**RL# 12**	• Cultures/Deaf Culture • Preview: S16 Topic
S16 **(Feb. 8)**	Nover (1993).Who will shape the future of deaf education? (pp. 117-123); Nover (1995). Politics and language: American Sign Language and English in deaf education (pp. 109-163).	**RL# 13**	• Development of Cultural Identities: Audism and Hearization • Preview: S17 Topic
S17 **(Feb. 22)**	Ovando & Collier (1998).Chapter 5: Culture (pp. 156-173); Hoffmeister, (1996). Cross-cultural misinformation: What does special education say about deaf people (pp. 172-189); Tharp, R. (1994). Instructional conversations in Native American classrooms.	**RL# 14**	• Cultural Difference Theories • Preview: S18 Topic
S18 **(March 1)**	Freeman & Freeman (1998). Chapter 9: Lessons should support students'first languages and cultures, part two (pp. 219-240); Krashen (1998). Bilingual education: good for English (pp. 5-6).	**RL# 15**	• Bilingual Education: Programs & Models • Preview: S19 Topic
S19 **(March 8)**	Livingston (1997). Chapter 2: Developing competency in American Sign Language (pp. 19-44).	**RL# 16**	• Bilingual Education L1 Support • Preview: S20 Topic
S20 **(March 22)**	Jacobson (1990). Allocating two languages as a key feature of a bilingual methodology (pp. 3-17);	**RL# 17**	• Bilingual Education: Methodology • Continue S21 Topic
S21 **(March 29)**	Jacobson (1990). Allocating two languages as a key feature of a bilingual methodology (pp. 3-17);	**RL# 18**	• Bilingual Education: Methodology (Cont.) • Preview: S22 Topic

S22 (April 12)	Graney (1997). Where does speech fit in? spoken English in a bilingual context (pp. 1-19).	**RL# 19**	• Bilingual Education: role of spoken English • Preview: S23 Topic
S23 (April 19)	Freeman & Freeman (1998). Chapter 10: Faith in the learner expands student potential (pp. 241-266), Epilogue (pp. 267-275); Castellano (1997). Assessing limited English proficient students as candidates for special education services (pp. 13-16).	**RL# 20**	• Bilingual Education: Assessment and Evaluation
S24 (April 26)		**Reflection and Evaluation**	• Share personal insight on professional growth

A Seminar Packet of Readings
A List of Articles for Level 2

Seminar No.	SOURCE:
S16	• Nover, S. (1993). Who will shape the future of deaf education? In M. Garretson (Ed.), *Deafness: 1993-2013: A Deaf American Monograph, 43*, 117-123. Silver Spring, MD: National Association of the Deaf. • Nover, S. (1995). Politics and language: American Sign Language and English in deaf education. In C. Lucas, (Ed.), *Sociolinguistics in deaf communities* (pp. 109-163). Washington, DC: Gallaudet University.
S17	• Hoffmeister, R. (1996). Cross-cultural misinformation: What does special education say about deaf people (pp. 172-189). *Disability and Society, 11*(2), 171-189. • Tharp, R. (1994). Instructional conversations in Native American classroom. *ERIC Digest* (December)
S18	• Krashen, S. (1998). Bilingual education: Good for English. *NABE News, 22*(2), 5-6.
S19	• Livingston, S. (1997). Chapter 2: Developing competency in American Sign Language (pp. 19-44). *Rethinking the education of deaf students: Theory and Practice from a teacher's perspective.*
S20/21	• Jacobson, R. (1990). Allocating two languages as a key feature of a bilingual methodology (pp. 3-17). In R. Jacobson & C. Faltis (Eds.), *Language distribution issues in bilingual schooling*. Clevedon, England: Multilingual Matters.
S22	• Graney, S. (1997). *Where does speech fit in? Spoken English in a bilingual context. Working Paper.* Washington, DC: Gallaudet University Pre-College Mission Programs.
S23	• Castelano, J. (1997). Assessing limited English proficient students as candidates for special education services. *NABE News, 21*(1), 13-16.

APPENDIX D

Syllabus

Year Two
Fall 1998 (Level 3) & Spring 1999 (Level 4)

Teacher Development: An Overview

The Star Schools two-year training package provides an opportunity for teachers to use critical pedagogy as defined by Wink (1997). Critical pedagogy is a process where teachers "name" their beliefs, "reflect" critically on them, and then take "action." In the Star Schools training, teachers will "name" traditional beliefs, critically and collaboratively "reflect" on them, and then "act" to implement effective practices of bilingual/ESL instruction that will enhance the achievement of deaf students in all academic classes. The overall focus will be on two components of bilingual instruction: (1) the bilingual approach which involves the use of ASL and English and (2) the ESL approach which involves the exclusive use of English as a second language.

Seminar Description: Levels 3 & 4

In the second year, teachers will participate in 24 seminars (2 hours each) totaling 48 hours of training; the initial and final seminar of each semester will be used for orientation/review and evaluation of seminar content. The second year will begin with a survey of current research on bilingual methodology and classroom assessment. Teachers, using action research, will apply bilingual/ESL methods currently used with hearing children to identify those methods most effective with deaf learners. The teacher will then explore ways of measuring the effectiveness of these methods. These will result in a collection of effective bilingual/ESL methods with corresponding assessment tools to measure students' growth in language and literacy.

Required Texts

1. Baker, C. (1995). A parents' and teachers' guide to bilingualism. Clevedon, England: Multilingual Matters (both semesters and second-year training).
2. Faltis, C., & Hudelson, S. (1998). Bilingual education in elementary and secondary school communities: Toward understanding and caring. Boston: Allyn & Bacon.
3. Graney, S. (1997). Where does speech fit in? Spoken English in a bilingual context. Washington, DC: Pre-College National Mission Programs.
4. Prinz, P. (Ed.) (1998). ASL proficiency and English literacy acquisition: New perspectives. Topics in Language Disorders, 18(4).
5. A seminar packet of readings will be provided (see a list of articles at the end of the syllabus).

Seminar Requirements

1. **Attendance**: Teachers will attend 12 seminars (two hours each) per semester; the first will be for orientation and the last for evaluation. Attendance is mandatory because participation in and contributions to the seminars are essential; teachers who miss more than two seminars are subject to losing their stipend ($1,000 each semester).

2. **Communication**: Teachers are expected to use ASL during seminar meetings.

3. **Reading Assignments:** Teachers are expected to complete the readings before weekly seminars so that discussions of how to implement and assess method effectiveness can occur during the seminar.

4. **Reflective Logs (RL):** Teachers are expected to complete the reflective log assignments before weekly seminars, share individual responses, and participate in weekly reflective activities.

- Reflective log questions will be completed for 10 seminars each semester; these logs will be an individual's response to the readings, topics discussed in seminars, and/or experiences that teachers have had in their classrooms. Log entries will be used as a basis for group discussion, serve as a

written record of individuals' thinking, and provide data for research purposes and dissemination of successful methods of language teaching.

- Teachers are expected to keep all completed reflective logs in a binder throughout the year for documentation of professional development.
- It is critical that reflective logs be turned in on time for effective participation and for research purposes.

5. **Classroom Observation:** Teachers will observe one other teacher per semester for the purpose of describing language teaching, learning, use, and strategies (ASL and English) using a newly developed checklist.

6. **Videotaping:** Along with regular classroom observations, videotaping will be done at scheduled times. These videotapes will be utilized for a variety of functions to fulfill the requirements of the Star Schools project. The videotapes will identify appropriate teaching approaches, strategies, and techniques for teaching ASL and English.

7. **Research Participation**: Teachers must be willing to provide documents, photographs, and/or videotapes for the purpose of data collection and analysis, publication, and dissemination.

The Second Year of the Star Schools Training
Level 3, Fall 1998

Seminar No./Date	Topic Questions	Required Reading Assignments
S1 (9/8/98)	• **Orientation and Introduction;** • **What are the expectations?** • **How are seminars organized?** • **Self Assessment**[1] • **What are the bilingual models?**	Chapter 2: What Does Bilingual Education Look Like? (Faltis & Hudelson, 1998, pp. 25-62);
S2 (9/14/98) **RL1 Due**	• **What are the principles of language learning?**	Chapter 5: Bilingual Education in Elementary School Setting (Faltis & Hudelson, 1998, pp. 109-146).
S3 (9/21/98)	• **How are two languages allocated in a bilingual classroom?**	Allocating Two Languages as a Key Feature of a Bilingual Methodology (Jacobson, 1990, 3-17).
S4 (9/28/98) **RL2 Due**	• **What three areas of language development need to be cultivated for the deaf bilingual learner?**	Development of ASL and English Competence for Learners Who Are Deaf (Nover et al., 1998, pp. 61-71).
S5 (10/5/98). **RL3 Due**	• **What activities cultivate signacy, literacy, and oracy development in bilingual classrooms?**	Teacher presentations of language patterns.
S6 (10/19/98)	**CONT' from S 5**	
S7 (10/26/98)	• **What cultivates the relationship between ASL signacy and English literacy?** • **Does fingerspelling make English literacy possible?** • **Do English literacy make fingerspelling possible?** • **Is the relationship reciprocal?**	Reading Ability in Signing Deaf Children (Padden & Ramsey, 1998, pp. 30-46).

S8 (11/2/98) **RL4 Due**	• **How do we cultivate ASL signacy and English literacy development in a bilingual classroom?**	ASL to English Literacy (Andrews, 1997, p. 5); How Do You Do It? (Andrews, 1997, p. 276-277); Building Blocks for literacy: Getting the Signs Right (Andrews & Akamatsu (1993, pp. 5-9) Preview - PVR
S9 (11/9/98)	• **How do we effectively use the ASL summary technique to increase English comprehension?**	Using Sign Language Summaries: During Prereading Lessons (Andrews, 1996, pp. 30-34); Developing ASL Summaries for Children's books
S10 (11/16/98) **RL5 Due**	**CONT' from S9**	
S11 (11/23/98)	• **What are the complexities of oracy development for a deaf bilingual learner?**	Where Does Speech Fit In? Spoken English in a Bilingual Context (Graney, 1997, pp. 1-19).
S12 (11/30/98) **RL6**	• **Reflection and Evaluation**	

A Seminar Packet of Readings
A List of Articles for Level 3

Seminar No.	SOURCE:
S3 (9/21/98)	Jacobson, R. (1990). Allocating two languages as a key feature of a bilingual methodology. In R. Jacobson & C. Faltis (Eds.), Language distribution issues in bilingual schooling (pp. 3-17). Clevedon, England: Multilingual Matters.
S4 (9/28/98)	Nover, S., Christensen, C. & Cheng, L. (1998). Development of ASL and English competence for learners who are deaf. Topics in Language Disorders, 18(4), 61-71.
S7 (10/26/98)	Padden, C. & Ramsey, C. (1998). Reading ability in signing deaf children? Topics in Language Disorders, 18(4), 30-46.
S8 (11/2/98)	Wilhite, M. (1997). Letter to the editor: ASL to English literacy. American Annals of the Deaf, 142(1), 5. Andrews, J. (1997). Letter to the editor: "How do you do it?" American Annals of the Deaf, 142(4), 276-277. Andrews, J. & Akamatsu, C. (1993). Building blocks for literacy: Getting the signs right. Perspectives in Education and Deafness, 11(3), 5-9.
S9 (11/9/98)	Andrews, J., Winograd, P. & DeVille, G. (1996). Using sign language summaries during prereading lessons. Teaching Exceptional Children, 28(3), 30-34.
S11 (11/23/98)	Graney, S. (1997). Where does speech fit in? Spoken English in a bilingual context. Washington, DC: Gallaudet University Pre-College National Mission Programs.

Required Texts for Level 3

1. Dubé, R. (1995-96). Language assessment of deaf children: American Sign Language and English. *JADARA, 29*(3/4), 8-16.
2. Fradd, S. (1992-1994). *Instructional language assessment*. Gainesville, FLA: IASCP, University of Florida.
3. O'Malley, J. & Pierce, L. (1996). *Authentic assessment for English language learners: Practical approaches for teachers*. Reading, MA: Addison-Wesley.
4. Rhodes, L. (Ed.) (1993). *Literacy assessment: A handbook of instruments*. Portsmouth, NH: Heinemann.
5. Stefanakis, E. H. (1998). *Whose judgment counts? Assessing bilingual children, K-3*. Portsmouth, NH: Heinemann.

The Second Year of the Star Schools Training
Level 4, Spring 1999

Seminar No./ (Date)	Reading Assignment Due	Written Assignment Due	Discussion Topics/Activities
S1 **(Jan. 11)**			• **Role of Culture in Language Assessment and Instruction**
S2 **(Jan. 25)**	Fradd (1992-94). Instructional Language Assessment Stack 2: Culture.	• **RL#7 Due: (Create a high context classroom)**	• **Review: S1 Topic** • **Preview: Sociocultural Assessment Process**
S3 **(Feb. 1)**	Stefanaskis (1998). Chapter 1: Whose judgment counts when assessing bilingual children? Why study teachers? (pp. 1-6), Chapter 2: What research suggests about assessing bilingual children (pp. 7-18), Chapter 3: Teachers preparing themselves to assess bilingual children (pp. 19-33).	• **RL#8 Due: Assessing bilingual students**	• **Review: S2 Topic** • **Preview: Authentic Assessment**
S4 **(Feb. 8)**	O'Malley & Pierce (1996). Chapter 1: Moving toward authentic assessment (pp. 1-8); Stefanaskis (1998). Chapter 4: How teachers do classroom assessments: Noting struggles and breakthroughs, discovering strengths (pp. 34-49).	• **RL#9 Due: Pre-Authentic Assessment Inventory for Goal Setting** • **Denver Reading Attitude**	• **Review: S 3 Topic** • **Preview: Case Study of Kathy's Classroom** • **Preview: Case Study of Manuel's Classroom**
S5 **(Feb. 22)**	Stefanaskis (1998). Chapter 5: Portrait of Kathy: Kids helping kids (pp. 50-72); Stefanaskis (1998). Chapter 6: Portrait of Manuel: Creating lifelong learners (pp. 73-91), Chapter 7: Conclusion and implications (pp. 92-98).	• **RL#10 Due: Denver Writing Attitude**	• **Review: S4 Topic** • **Preview: Language Assessment of Bilingual Deaf Children**
S6 **(Mar. 1)**	Fradd (1992-94). Instructional Language Assessment: Stack 9: Language proficiency; Dubé (1995-96). Language assessment of deaf children: American Sign Language and English.	• **RL#11 Due: Signing Attitude**	• **Review: S5 Topic** • **Preview: Speaking/Signing Assessment: Interviews and Attitude Surveys**
S7 **(Mar. 8)**	O'Malley & Pierce (1996). Chapter 4: Oral language assessment (pp. 57-92).	• **RL#12 Due: Signing Assessment**	• **Review: S6 Topic** • **Preview: Speaking/Signing Assessment: Story/Text Retelling**

S8 **(Mar. 22)**	O'Malley & Pierce (1996). Chapter 5: Reading Assessment (pp. 93-133).	• **RL#13 Due: Signing Assessment**	• **Review: S7 Topic** • **Preview: Writing Assessment: Comprehension**
S9 **(Mar. 29)**	O'Malley & Pierce (1996). Chapter 6: Writing Assessment (pp. 135-161).	• **RL#14 Due: Reading Assessment**	• **Review: S8 Topic** • **Preview: Narratives Assessment**
S10 **(April 12)**	Fradd (1992-94). Instructional Language Assessment: Stack 12: Narratives.	• **RL#15 Due: Writing Assessment**	• **Review: S9 Topic** • **Discuss Narrative Assessment**
S11 **(April 19)**	Fradd (1992-94). Instructional Language Assessment Stack 14: Interface between Assessment and Instruction.		• **Review: S10 Topic**
S12 **(April 26)**		• **RL#16 Due: Narrative Assessment** • **Post Authentic Assessment Inventory for Goal Setting** • **Reflection and Evaluation**	• **Review: S11 Topic**

APPENDIX E

STAR SCHOOLS PROJECT ASSESSMENT INSTRUMENT FOR TEACHER STANDARDS

Name_____ **School**_____ **Fall** ____ **Spring**_____

Directions: Please assess your present level of competency for each standard using the following criteria:

5 = *mastery*	I understand the concept/theory/method. I can explain/teach it to others. I apply it in the classroom consistently.
4 = *maturing*	I understand the concept/theory/method. I apply it in the classroom some of the time but am not sure how to apply it consistently throughout the day.
3 = *developing*	I understand the concept/theory/ method, and I am beginning to apply it in the classroom one to five times a week.
2 = *emerging*	I am familiar with the concept/theory/method but am not sure how to apply it to my classroom. I need more time to think of how to integrate this in my teaching.
1 = *beginning*	I am not familiar with this. I need more information on this concept/theory/method.

I. Language/Literacy proficiency Self-Rating

1.1 I can comprehend and use ASL for a variety of authentic purposes, audiences, and contexts.

1__ 2__ 3__ 4__ 5___

1.2 I can comprehend and use English for a variety of authentic purposes, audiences, and contexts.

1__ 2__ 3__ 4__ 5___

1.3 I can codeswitch from ASL to English and English to ASL.

1__ 2__ 3__ 4__ 5___

1.4a I have linguistic knowledge in ASL.

1__ 2__ 3__ 4__ 5___

1.4b I have linguistic knowledge in English.

1__ 2__ 3__ 4__ 5___

1.5a I have a positive attitude toward language acquisition/learning of ASL.

1__ 2__ 3__ 4__ 5___

1.5b I have a positive attitude toward language acquisition/learning of English.

1__ 2__ 3__ 4__ 5___

1.5c I have a positive attitude toward American Deaf Culture and multiculturalism.
1__ 2__ 3__ 4__ 5___

1.6 I can integrate language/literacy skills with current technologies to access and use information.
1__ 2__ 3__ 4__ 5___

II. Bilingual/ESL Education and Deaf Education

2.1 I have an understanding of the fundamentals of and the similarities and differences between first and second language acquisition/learning processes.
1__ 2__ 3__ 4__ 5___

2.2 I have knowledge of bilingual/ESL instructional methods and resources.
1__ 2__ 3__ 4__ 5___

2.3 I can incorporate Nover's et al. (1998) "Bilingual Ability Framework" into teaching practices.
1__ 2__ 3__ 4__ 5___

2.4 I have knowledge of English literacy instruction.
1__ 2__ 3__ 4__ 5___

2.5a I have knowledge of ASL development.
1__ 2__ 3__ 4__ 5___

2.5b I have knowledge of English development.
1__ 2__ 3__ 4__ 5___

2.6 I can create bilingual and ESL learning environments within a multicultural setting that fosters positive social interaction, active engagement in learning, and self-motivation.
1__ 2__ 3__ 4__ 5___

III. Instructional Language Assessment and Research Self-Rating

3.1 I can develop and use formal and informal language/literacy assessment tools and strategies to guide instruction.
1__ 2__ 3__ 4__ 5___

3.2 I can interpret student performance data to adjust instruction.
1__ 2__ 3__ 4__ 5___

3.3 I can conduct action research to reflect and act on instructional strategies and analyze student learning.
1__ 2__ 3__ 4__ 5___

IV. Public Engagement

4.1 I can work with parents/residential staff and community to share accurate information about bilingual/ESL education and its impact on language/literacy development.

1__ 2__ 3__ 4__ 5___

4.2 I can train/mentor other teachers in bilingual/ESL approaches to improve language/literacy instruction.

1__ 2__ 3__ 4__ 5___

APPENDIX F

Teacher Ideas "from the desk of..."

From the desk of.....

Betty Bounds (TSD)

Betty Bounds led the teachers into a group discussion about Deaf Culture. Here are some highlights. Deaf Culture makes use of the following items.

Topic: Deaf Culture Characteristics

- ASL
- Deaf slang
- Call attention with appropriate touch
- Body contact and body language
- TTY
- Facial expressions
- Arrange the physical environment for eye contact
- Involved in deaf events
- Use conversational structures
- Walk side by side (not single file)
- Share emotions and opinions openly
- Well-lit kitchens
- Eye contact
- Blunt in conversations
- Furniture arrangement for signing
- Deaf standard time
- Turn-taking in conversations
- Specific places to socialize
- Attention getting devices: waving, banging the table to get attention, flashing lights, stomping feet to get attention
- At first meeting ask which school did you graduate from?

From the desk of.....

Tommie Brasel, Mentor-Teacher (NMSD)

Topic: How to use ASL to support the sign to print relationship.

Tommie Brasel summarized her teachers' responses to the question of how to use ASL to make the sign to print relationship more explicit. Here are some teachers' tips.

1. Summarize the story in ASL and use pictures, props, guiding questions, and discussions.
2. Sign/mime/gesture and dramatize complex vocabulary and concepts before reading.
3. Check with deaf people how to sign vocabulary you are not sure of.
4. Use guided reading where you show how one word can equal several signs together. and how several printed words can equal one sign.
5. Use fingerspelling activities to reinforce guided reading activities.
6. Write words, phrases, and sentences as students dictate to you in ASL.
7. Include classroom activities such as favorite word, chart stories, science experiments, field trips to provide the meaning for the sign to print relationship.
8. Refer to the English text often during prereading, reading, and post reading activities.

Tommie Brasel, Mentor-Teacher (NMSD)

Topic: Assessment

Tommie Brasel led her teachers in a discussion about assessment in a bilingual program. Here are some major points of that discussion.

Assessment is…

- Identifying my students' present level.
- Observation of students' ability for the purpose of shaping my instruction.
- Measurement or rating of a child's current performance in any number of areas related to self, other people, or a standard.
- The ongoing collection of information/documentation/data both standardized and "authentic" (including developmental information, thinking process, end products, student work and family information, etc.) about individual children that is part of the ongoing evaluation of children's growth to help teachers and others plan opportunities for next steps, to evaluate teaching methods and to modify programs.
- Is a way to find out what the child or person knows or has learned.
- A check up on what or how students learn, how the teaching is going, what needs to be changed, and what is working. It is a way to look at progress of a student and teacher.
- Evaluating one's knowledge or skill in a specific area.
- A process of gathering information using a variety of tools to determine the levels of the students.
- A method to measure what a student has acquired or concepts not learned, to give the teacher direction for instruction.
- A process of determining/identifying a student's skill in order to best help them in their progress.

Topic: Use of fingerspelling cross referenced with Jacobson's bilingual methods (see Jacobson, 1990 for the article which clearly explains each bilingual method).

Tommie Brasel summarized the teachers' comments about the use of fingerspelling in class. Here are some highlights.

1. Students with early exposure to fingerspelling make print connections.
2. Young deaf students "babble" in fingerspelling and attempt to copy fingerspelling, (new concurrent approach).
3. Fingerspelling can be paired with a key theme word that is signed often (flip-flopping).
4. When teachers use chaining in class, students will start to use chaining in their conversations (new concurrent approach).
5. Students respond to fingerspelling more when it is connected to a sign or print (concurrent translation, flip-flopping).
6. Students love to show-off their ability to copy fingerspelling to practice fingerspelling on their own and to fingerspell "without looking."
7. Fingerspelling can be identified during guided-reading by the use of colored markers, highlighting, or writing in the margin (concurrent translation).
8. Fingerspelling can be used in an English "Focus" lesson on prefixes, suffixes and root words (concurrent translation).
9. Fingerspelling is an important component of vocabulary words and allows teachers and students to learn specialized words, such as 'space shuttle,' motives such as 'suspicious,' 'suspects,' 'suspicions.'
10. Fingerspelling supports beginning readers. Print is less mysterious because it is attached to something our students know.

11. Fingerspelling can be used for words for which there is no one ASL equivalent ('oblivious,' 'tenuous.'). Following the fingerspelling of the English word, then the teacher can explain the concept using several ASL signs.
12. Fingerspelling can be used for words whose meanings in ASL are expressed through motions (i.e. 'silly,' 'absurd,' 'ridiculous.').

From the desk of.....

Nancy Eades, Mentor Teacher, KSD

Nancy Eades explained Jacobson's (1995) "Bilingual Methodology: Subcategories of Language Distributional Patterns" in one of her seminars. She then applied it to working with deaf children. Here is a summary of her notes.

New Concurrent Approach (NCA)
The teacher decides on the language to use for communication. The teacher uses ASL, written English, or speech to communicate to the child and expects the same thing for a response from the child.

Preview/View/Review
PREVIEW: teacher uses ASL to build background knowledge to make English print more comprehensible. The teacher uses ASL to "bridge" from the child's conceptual knowledge in ASL to the concepts in English. The teacher uses ASL to develop key concepts/vocabulary in English context (teacher can point out the English print or fingerspell the word...flip-flopping). The teacher uses ASL to motivate the child to want to read.
VIEW: The teacher uses English only to immerse the students in the content, to facilitate acquisition and learning in an authentic context for content learning.
REVIEW: The teacher uses ASL to retell the information, to describe/explain key vocabulary/concepts, to answer questions, to pose questions, to summarize content, to confirm predictions.

Flip-flopping (Codeswitching)
This is also called codeswitching between the two languages. An example for ASL and English is fingerspelling. The teacher signs a story from the book and fingerspells a word in English from the text.

Concurrent Translation
For Guided Reading, the teacher points to the text on the overhead, chart paper, big book, etc., reads it, then codeswitches it to ASL. This technique differs from NCA, since the teacher is doing the codeswitching and the student can respond in any way. Codeswitching is complex and students may not be able to do it after seeing it modeled. In NCA, they can respond in the language indicated.

Merging
1. Submersion: This refers to the L1 not being allowed, supported, or used in a bilingual setting. The L1 is submerged and only the majority (L2) is used.
2. Immersion: this uses just one language (either immersion in ASL or immersion in English-only).
3. Separation: Language separation occurs only by using one language at a specific time, place, and with a specific person and content. For example, to use spoken English only with the speech therapist for speech training.

4. Content
5. Person
6. Time
7. Place

From the desk of…..

Nancy Eades, Mentor Teacher (KSD)

Topic: Social and Academic Uses of ASL; social and academic use of English. (Nancy Eades makes a distinction between two types of uses of each language. Here are some examples she and her teachers came up with at KSD.)

ASL Social Language

- Interact in discussions informal topics (e.g. weather, news, food).
- Brainstorm in small or large groups (e.g. storytelling, planning activities).
- Play and participate in interactive games (e.g. handshapes, signs, board games).

ASL Academic Language

- Engage in discussions on content topics, facts, predictions, inferential and critical information/questions (e.g. literature, expository).
- Translate ASL to English and English to ASL.
- Plan and make presentations (e.g. role-play, drama, Jr. NAD, Student Council).

English Social Language

- Type in informal contexts (e.g. diary, food orders, passes, friendly letters, notes).
- Fingerspelling/fingerread for social purposes (e.g. names of people, places, unknown signs).

English Academic Language

- Writing: language experience stories, learning logs, literature journals, presentations, reports, business letters, dictated responses on charts, etc.
- Monitor and evaluate skills (e.g. word choice, semantics).
- Fingerspelling/fingerreading for academic purposes (e.g. target vocabulary).
- Access information on the Internet.

From the desk of…..

Kathy Glyer (NMSD)

Topic: Use of Digital Cameras

1. documentation of field trips
2. photos for language experience stories
3. sequencing (from trips, stories)
4. vocabulary building (match word to pictures)
5. letters to parents
6. school publications
7. thank-you letters
8. daily journals (for captioning)
9. portfolios (taking pictures for projects)
10. displays (class pictures, centers)
11. homework

12. recipes (use pictures to show process, vocabulary, ASL signs)
13. class newspaper (pictures of authors, events, activities)
14. use of students' faces to make class books related to literature
15. word problems
16. documentation of math activities (manipulatives)
17. hook up camera to VCR for slide show to show parents or visitors
18. student picture with picture of famous persons "I wish I could meet.."
19. interview others—include pictures
20. state report/landmarks, include pictures of student in report as well as in Hyperstudio
21. flash cards, spelling, sign/spelling
22. class schedule
23. 2nd grade guide for first graders
24. hands-on activities
25. class rules
26. make up story
27. pictures of home to help learn address (same with phone, etc.)
28. keep file of pictures for story starters
29. Kid Pix—draw on picture of face
30. Book report covers
31. "paper dolls"
32. comic strip
33. feelings posters
34. show ASL/English
35. tests with sign prompts
36. matching (show "cat" and match sign to English print)
37. add to a story
38. scan a page from a book—add kid's picture to it and caption

From the desk of.....

Pam Shaw (KSD)

Topic: Stereotypes of deaf persons

Pam Shaw suggested that deaf people are often stereotyped in negative ways in "Psychology of Deafness" classes. She suggested that deaf culture offered us an avenue for positive identity.

Negative Stereotypes
Deaf people...

- Are more impulsive than hearing persons.
- Are more concrete than hearing (see things in black and white).
- Always perform poorly in written English.
- Are socially immature.
- Do not know the facts; they lack information.
- Have less opportunity and training to think.
- Are insecure, passive, or rigid in unstructured situations.
- Are outsiders in a hearing world.
- Have lower educational attainment than the general population.
- Have lower socioeconomic achievement than general hearing people.
- Have more car accidents than hearing people.

From the desk of.....

Luanne Ward (KSD)

Topic: Suggested supplementary readings for Level 1

Ms. Ward has made the following suggestions to supplement Level 1 of the training.

1. Fradd's work on assessment.
2. Additional articles by Jim Cummins for background information.
3. Readings by Colin Baker.
4. Mashie, Shawn (1997). A first language: Who's choice is it? Washington, DC: Pre-College programs.
5. Mashie, Shawn (1995). Educating deaf children bilingually. Washington, DC: Pre-College National Mission Programs.
6. Schleper, David (1997). Reading to deaf children: Learning from deaf adults. Gallaudet University; Pre-College National Mission Programs.
7. Livingston, Sue (1997). Rethinking the education of deaf students. Portsmouth, NH: Heinemann.

From the desk of…..

Luanne Ward, Mentor Teacher (KSD)

Topic: Components of Culture, components of the Deaf Culture.

With her teachers, Luanne camp up with this web about culture in general and Deaf Culture in particular.

APPENDIX G

Reading and Writing Attitude Survey

Description:

The Reading and Writing Attitude Survey provides information about how students feel about signing and indicates how much they are using signing in their personal lives.

Instructions for Administering:

Explain the purpose of this survey to the students. The purpose is to help teachers understand more about the students' feelings and attitudes toward reading and writing. This information will help teachers know their students better and become better teachers.

The teacher can administer this survey with small groups of students or with individual students. the teacher should sign each statement and ask the student to answer YES or NO. If the student responds affirmatively (YES) to the question, ask the student about frequency (often, sometimes, or rarely) and circle their response on the form. If the student responds negatively (NO), circle "not or never" on the survey. Use language that students are comfortable with. Teachers can provide explanations or examples to help the student understand the questions. Remember, this is not a test. The student should feel safe and comfortable during this interview. **Note any observations you have about students on the survey form. Record all responses on a summary chart attached. Write three conclusions about your students based on their responses.**

Reading and Writing Attitude Survey

Name: _____ **Age:** _____ **Grade:** _____

Teacher: _____ **Date:** _____

Ask the question. Record the response by making a check (√) in the appropriate column.

Questions	No	Yes	Often	Some-times	Rarely
1. Do you read in school?					
2. Do you read at home?					
3. Do you read the newspaper?					
4. Do you read magazines?					
5. Do you read books?					
6. Do you read captioning on TV or in movies?					
7. Do you learn worthwhile things from reading?					
8. Do you tell others about what you read?					
9. Do you feel proud of what you can read?					
10. Do you read information on the computer?					
11. Do you write in school?					
12. Do you write at home??					
13. Do you feel proud of what you can write?					
14. Do other people understand what you write?					
15. Do you write to tell others what you learn?					

16. What kind of reader do you think you are? (*Circle one answer.*)

a) very good___ b) good ___ c) average___ d) poor___ e) very poor___

17. What kind of writer do you think you are? (*Circle one answer.*)

a) very good ___ b) good___ c) average___ d) poor___ e) very poor___

APPENDIX H

Signing Attitude Survey

Description:
The Signing Attitude Survey provides information about how students feel about signing and indicates how much they are using signing in their personal lives.

Instructions for Administering:

Explain the purpose of this survey to the students. The purpose is to help teachers understand more about the students' feelings and attitudes toward signing. This information will help teachers know their students better and become better teachers.

The teacher can administer this survey with small groups of students or with individual students. The teacher should sign each statement and ask the student to answer YES or NO. If the student responds affirmatively (YES) to the question, ask the student about frequency (often, sometimes, or rarely) and circle the response on the form. If the student responds negatively (NO), circle "not or never" on the survey. Use language that students are comfortable with. Teachers can provide explanations or examples to help the student understand the questions. Remember, this is not a test. The student should feel safe and comfortable during this interview.

Note any observations you have about students on the survey form. Record all responses on a summary chart attached. Write three conclusions about your students based on their responses.

Signing Attitude Survey

Name: _____ **Age:** _____ **Grade:** _____

Teacher: _____ **Date:** _____

Ask the question. Record the response by making a check (√) in the appropriate column.

Questions	No	Yes	Often	Some-times	Rarely
1. Do you like to watch a person signing?					
2. Do you understand signing?					
3. Do you learn from watching signing?					
4. Do prefer watching a signer or reading texts?					
5. Do you sign fluently?					
6. Do you feel proud of what you can sign?					
7. Do other people understand what you sign?					
8. Do you sign outside of school?					
9. Do you use signing to tell others how you feel?					
10.Do you use signing to tell what you learned?					
11. Do you use signing to help you think more clearly?					

12. What kind of signer do you think you are?
A) very good B) good C) average D) poor E) very poor
Comments/observations:

_____

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